An Address

ON

GENERAL PHYSIOLOGY AND PATHOLOGY,

ILLUSTRATED BY STUDY OF GESTATION AND MENSTRUATION.

Delivered before the Glasgow Obstetrical and Gynæcological Society on Nov. 2nd, 1894,

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THE UNITY OF MEDICINE.

MR. PRESIDENT AND GENTLEMEN,—When acknowledging the signal distinction conferred upon me by the Glasgow Obstetrical and Gynæcological Society in electing me its honorary President, I hope it will not be considered inappropriate if I make it the occasion for offering a few remarks upon the place of gynæcology in the domain of medicine. The rapid growth of science transcends the power of the keenest philosopher to grasp it in its entirety. Science in its true sense is Nature interpreted. If this is true of science in its broadest sense, it is also true of the science of medicine. Indeed, the growth of every branch of science forces the growth of medicine. All are interdependent. All physical, biological, and metaphysical knowledge has its bearing upon medicine. Recognising this comprehensive truth, and feeling how impossible it is for anyone to grasp the whole science of medicine, it must never be forgotten that no part or subdivision of medicine can be rightly understood or developed unless it be studied in its relations to the rest. Each throws and receives light. Seen from this fundamental standpoint there is, strictly speaking, no such thing as a speciality in medicine. He who gives exclusive attention to one department of medicine displays special ignorance, not alone of medicine in general, but also of the particular department he professes to cultivate. In like manner the professing "general physician," who specially neglects the study of any one branch of medicine, pretends to be that which he is not. It does not follow from these general reflections that the subdivision of medicine now prevailing is altogether wrong and ought to be abandoned. This subdivision is the necessary outcome of the evolution of medical science. The important thing to remember is that no one subdivision can be rightly understood if pursued as an isolated subject. To pursue a subdivision, or even two or more subdivisions, in this spirit, altogether neglecting one or more, constitutes specialism. Every subdivision is an integral part of the whole. Just as there is no organ in the body which can exist independently, so there is no organ whose functions and trials can be effectively studied apart from the rest.

COLLEGES AND SCHOOL-HOSPITALS FOSTER SPECIALISMS.

These reflections may seem obvious and trite enough. Assuredly they are so to you; but if we look around us, and observe the constitution of our colleges, our hospitals, and our schools, we cannot fail to see how grievously they are ignored in practice. I speak, of course, more especially of the state of things in London, the sphere of my personal experience. I know that in Scotland and in the provinces a more catholic spirit prevails, and that the studied neglect or subordination of gynæcology is less pronounced. The position of the gynæcologist in the metropolis is that of toleration rather than of inherent right. In the hospital schools the professor of obstetrics has long been hampered with restrictions at once galling to his self-respect and obstructive to the advance of science. He has not been permitted to cultivate or improve his own branch of medicine, still less to throw much-needed light on the rest.

GYNÆCOLOGY IS SURGICAL.

If there is one feature of gynæcology, including obstetrics, that is especially characteristic, it is that the treatment of the difficulties that present themselves in practice is essentially surgical. And we know that in this surgical character we find the evidence and proof of the brilliant light that gynæcology throws upon general physiology and pathology. The subjection of the gynæcological teacher to the special surgeons was, and still is in most hospitals, so arbitrary that he was not allowed to treat the cases which naturally fell under his care. The effective treatment, as we have just seen, is surgical, and the surgeons would not allow him to operate. Where any operative treatment was indicated the gynæcologist was made to call in one of the surgical staff to perform it. I cannot resist citing examples in illustration. In one of our large hospitals the obstetric physician had diagnosed an abscess in the pelvis pointing in the vaginal roof. The indication was to puncture it. But this was surgery, so the surgeon of the week was called in; but how to do it puzzled him. He had no intra-vaginal diagnostic faculty. The difficulty was overcome by the obstetric physician adjusting and holding the cannula to the spot, and then the surgeon pushed in the trocar; and we must suppose he thought he had honourably and usefully asserted the authority and dignity of surgery. In the same hospital I was invited to witness a Cæsarean section. The obstetric physician was not allowed to carry out this obstetric operation. So it was done by a surgeon who, in a discussion on an obstetric question before a medical society, had "thanked God he knew nothing of midwifery," provoking the keen and well-deserved rebuke of Robert Lee, that "if he was thankful for his ignorance he had much to be thankful for." In another hospital a surgeon, rashly undertaking a Cæsarean section, had laid open the uterus; he seized the arm that presented, so making a transverse presentation, and pulling upon it dragged uterus and all out of the abdomen. But here his surgery failed, so the obstetric physician, who was not competent to practise surgery, took up the case; he brought out a foot, turned, and delivered in half a minute. This physician was Ramsbotham. I am confident that he would have opened abdomen and uterus better than the surgeon. Gynæcology, at last freed, has achieved for the Cæsarean section its long-contested place as an elective and beneficent operation. Prominent among those to whom this is due is Murdoch Cameron.

Another remarkable illustration of the surgical bigotry which strives to ostracise gynæcology is seen in the history and constitution of the London College of Surgeons. Under considerable pressure the Council of the College, consisting almost entirely of London hospital surgeons, was induced to confess that a little knowledge of obstetrics might be a useful supplement to the qualification for its membership. In 1852 it instituted a midwifery board, but the diploma authenticated by this board was not held to be essential for the membership; still, the testamur in obstetrics could only be obtained by those who had previously passed the examination for the membership. It was a supplementary, not an independent, qualification. But the College had a charter empowering it to grant a special licence in midwifery distinct from any surgical or medical qualification. The Council decided to act upon this power, and called upon the Board of Examiners in Obstetrics to examine and qualify "persons" to register and practise midwifery by virtue of a special licence. The obstetric board refused to be agents in this ignominious work. I resigned a seat no longer one of honour. My colleagues followed my example. And so the College went on without a midwifery board until 1881, when the principle I had all along contended for—of making obstetrics, like surgery and medicine, an integral part of the examination for the diplomas of Fellow and Member—was conceded. The wisdom of the course adopted by me in refusing to aid in the unnatural scheme of divorcing obstetrics from medicine and surgery received emphatic recognition on March 24th, 1884, when the Council, Fellows, and Members, for the first time in the history of the College, met to deliberate on the charters. The resolution to abrogate Section 17 of the Charter of 15th Victoria was unanimously assented to by the Fellows and Members, declaring it to be "inexpedient to continue the examination for the licence in midwifery of the College."

By slow degrees the emancipation of the obstetric physicians in the general hospitals has been progressing. The first effective blow was struck by Tyler Smith on the foundation of St. Mary's Hospital. He, being appointed obstetric physician, asserted the duty and right of the obstetric physician to carry through, even to surgical treatment, the cases that by common consent fall under the domain of gynæcology. Some years later the same right was conceded to me at St. George's Hospital. And the spell has been broken in other hospitals more or less completely. Dr. Grailly Hewitt performed

ovariotomy and cognate operations at University College. I have adverted to one factor in this unnatural disintegration of medicine—the constitution of the College of Surgeons. Side by side is seen another factor in the correlative constitution of the College of Physicians. This College is somewhat less illiberal. It would be strange, indeed, if an institution which still by an annual oration acknowledges the sway of the mighty intellect of the immortal Harvey could altogether ignore obstetrics. For, had not the glory of the discovery of the circulation of the blood eclipsed every other event in the history of medicine, it is certain that Harvey would be remembered as the most sagacious interpreter of the phenomena of gestation. If the Colleges had been founded and had grown as the natural offspring of science, it is certain that their constitution and policy would have been different. In reality, their origin may be traced to the same spirit of protective policy prevailing in mediæval times, when the members of crafts united into guilds or companies. The Barber-Surgeons' Company, out of which sprang the College of Surgeons, is a striking example of this; and I hope it is not libellous to suggest that a taint of the original spirit survives. Another example in illustration of this survival of the guilds is seen in the Apothecaries' Company. These three Companies, with strong corporate interests and prejudices, long stood in the way, obstructing the unification of medicine as established in the universities.

THE UNIVERSITY OF LONDON.

London, the greatest capital in the world, until quite recently had no university, and when the University of London was founded it had to fight against the jealousy of vested rights. For a long time the Colleges favoured the old Universities, resisting the claims of the new one as intruding upon their domain. This feeling still exists in a modified degree. Undoubtedly the University of London would have achieved a stronger and more honourable position had its graduates, working in Convocation, been animated by a more liberal and far-seeing policy. But a party, powerful in numbers if not in the wisdom of its constituents, impressed with an exaggerated notion of the significance of the degrees they had won, have strenuously resisted such reforms as would open the door more widely to others; not reflecting that a degree is simply an academic title testifying to the attainment of a certain standard of education fitting the holder to aspire to better things. They seem to regard it as a title of distinction stamping the possessors as superior beings. The true graduate is one who strives by honest and useful work to prove the purpose of education; to justify his degree by doing credit to the university which conferred it. Happily, this stagnant party is losing strength. Recent proceedings give hope that a more healthy and progressive policy will prevail, and that the University of London will before long realise the design of its founders to help the cause of true education by opening more freely the old gates of instruction, by stimulating the foundation of new schools of science and art, and of effecting the reintegration of medicine by bringing into one harmonious whole the parts into which it had been split by corporate interests. One natural issue of this reintegration ought to be that, as in France, the University will take the lead as the qualifying power.

RISE OF GYNÆCOLOGICAL SOCIETIES.

It may appear somewhat out of place to dwell upon the political state of medicine, speaking from the chair of a gynæcological society. But it is not difficult to prove that the institution and work of gynæcological societies are the direct outcome of the arbitrary disintegration of medicine brought about by the medical corporations. We may also see that the scientific and clinical work of these societies is tending effectively towards the healthy reintegration of medicine. One of the earliest gynæcological societies was the Obstetrical Society of London. This was designed and founded by Tyler Smith, with the direct object of bringing gynæcology back into its due relation to medicine. His first idea was to establish a third college, a college of obstetrics, thus to complete the trinity of medicine, ignored by the medical and surgical colleges, and by the Royal Medical and Chirurgical Society of London. This work has been successfully taken up by other gynæcological societies; and I am very sure the Gynæcological Society of Glasgow will hold a foremost place in the regeneration of medicine. A striking evidence of the beneficial influence of the independent advance of gynæcology is seen in the recent constitution of a conjoint board of examiners by the two Colleges. This board affirms the unity of medicine by embracing in one qualification the three constituent elements of medicine, surgery, and obstetrics.

GYNÆCOLOGICAL HOSPITALS.

Associated with the work of the gynæcological societies is that of the so-called special hospitals devoted to the study of the diseases of women. It is a remarkable fact that the pure lying-in hospitals, representing obstetrics proper, have contributed comparatively little to the restoration of gynæcology to its rightful place as an integral element of medicine. Of course, obstetrics is a branch of gynæcology; or it might more strictly be called the root or foundation of gynæcology. But, looking at obstetrics as an essentially physiological subject, its relations to general medicine and surgery were ignored or neglected until gynæcology—suppressed, as we have seen, in the general hospitals—was cultivated independently in the hospitals established to treat the diseases of women. Striking has been the advance of surgery since these hospitals have come into work. In all our great centres of population we now see one or more.

MEDICINE SUBJECTIVE: SURGERY OBJECTIVE.

If we reflect upon the features that characterise medicine and surgery we must recognise the leading fact that medicine is largely subjective, whilst surgery, including gynæcology, is mainly objective; and herein lies the explanation of the commanding influence that recent gynæcology exerts upon general medicine and surgery. So long as gynæcology was represented only by pure obstetrics and by what we may call pharmaceutical gynæcology, dictated by the surgeons of our general hospitals, so long was gynæcology chiefly subjective—that is, theoretical, dogmatic, and barren. But when all the resources of objective investigation and treatment were brought into action, then gynæcology not only became a real power in the relief of suffering women, but it enlightened many problems in general pathology, and advanced the knowledge and applications of surgery in the general sense. The objective opportunities of medicine arise from the effects of disease established; the origin, the early stages, too frequently elude observation or are lost in the dark and fallacious records of history. Take, for example, diseases of the heart. Some imperfect, indirect clinical objective tests we have—those furnished by palpation, percussion, the ear, the sphygmograph, and the quasi-objective but truly subjective symptoms. We cannot bring the heart, the seat of organic disease or physiological disturbance, under direct observation by sight or touch. Thus the imperfect objective revelations and the symptoms are liable to be variously interpreted, according to the general knowledge and special bias of the physician—that is, the interpretation is essentially subjective. The same arguments apply with not less force to diseases of the lungs, liver, spleen, kidneys, and nervous system. In the case of the liver and kidneys and intestines and lungs the physician has the additional opportunities of objective study by examining the secretions and excretions. But he can rarely get at the organ itself—the presumed seat of disease—until the disease has done its worst, and then he appeals to that last resource of subjective research, cadaveric dissection—interesting and instructive truly—as furnishing the last link in the chain of pathological processes, in demonstrating the physical organic changes they have wrought, and in supplying important elements in the construction of pathological theories that may be applied to the relief of future patients. How different are the conditions under which the gynæcologist works. There are two other departments of medicine which are freely open to subjective observation—affections of the eye and of the skin. These organs are under direct ocular inspection; but the changes observed in them are commonly the result of changes in internal organs or of so-called constitutional disorders—that is, their interpretation is largely subjective. The gynæcologist goes direct to the organs which are the more immediate subjects of his study by touch and sight, aided by instruments. Some of these instruments, as the sound and speculum, extend the range of touch and sight; and where there is sufficient indication exploratory incisions may lay bare to the eye the ovaries and abdominal organs. There is no doubt that abdominal surgery has been greatly extended—if not created—by the gynæcologist. The liver, spleen, and kidneys of late years have, like the ovaries and uterus, been brought under direct inspection and successful surgical treatment. Might one ask how far the progress of abdominal surgery has suggested or stimulated the recent wonderful achievements in cerebral surgery that have made

the names of Macewen and Horsley famous? Of course, we cannot contemplate or trace the modern development of surgery without recognising the brilliant part that anæsthesia and antisepsis have played in facilitating operations and in reducing the danger attending them—boons which science and humanity owe to the genius of Sir James Simpson and Sir Joseph Lister.

GESTATION AND PHYSIOLOGY: THE FORCES EVOKED BY GESTATION.

We may now turn our attention to the more strictly scientific aspect of our theme. If we search the entire range of medicine we shall find no field of observation so rich in elementary fundamental matter as that which gestation presents. Gestation may truly be called the threshold of medicine. It is a direct physiological experiment by which we may test the action, individual and reciprocal, of all the organs of the body under definite conditions. Two leading impulses or forces are produced by gestation. First, is the starting of exalted nervous and vascular tension, attended by certain changes in the blood. Under this force we may witness and study the rapid development of tissue and general increase of glandular energy. An event full of interest marks the end of this force and ushers in the second force—that of absorption and lactation. This is hæmorrhage. The discharge of blood attending labour, and that which is known as the lochia, is strictly physiological. It is the first and immediate step in the restoration of the single circulation following the casting off of the embryo. By this discharge the excess of circulating blood is got rid of. But this is not all. If the loss of blood exceeds the physiological need the force of absorption is accentuated, a vacuum force is added which favours the sucking-in of any fluid matter from the genital canal, from the intestinal canal, and also of any fluid or aerial matter existing in or brought to the lungs. This, then, is a prime factor in the production of puerperal septicæmia. In physiological degree hæmorrhage and absorption lead to the healthy disposal of effete matter. In pathological degree they lead to empoisonment and organic changes which we will presently touch upon. Under the forces we have noted the integrity of every tissue is on trial. A weak organ or constitution hitherto working fairly reveals its defects, and by its work shows the development of processes which, under ordinary circumstances, are regarded as pathological.

GESTATION AN EXPERIMENT IN PHYSIOLOGY.

The observer puts a direct question to nature. The method of experiment to which medicine owes so much depends largely upon vivisection. Reflection will show that the observation of the pregnant woman is in many points analogous to vivisection. Nature provides the medical philosopher with a field of physiological observation rich beyond estimate, equivalent to, and in many way superior to, the best devised artificial experiments; and suggesting the pursuit of this course of inquiry by systematic experiments on the lower animals during life and by dissection at different stages of gestation. In this way we may hope to supplement and elucidate some questions which arise out of the observation of women. If we gather into one focus all the phenomena evoked by gestation we cannot fail to be impressed by the marvellous transformation wrought in every part of the organism. Every drop of liquid, every cell, every fibre, every organ feels the new impulse. All are compelled to work together to carry on the work of reproduction. Every function is doubled in energy. Healthy gestation is marked by exact equilibrium between the wants of the two organisms. But in truth the imperious demands of the new being which has taken possession of the mother often predominate, and the maternal organs, overtaxed, are overcome in the struggle. Transition from physiological action into pathological processes and changes of structure take place. All the blood changes; all the modifications of secretion and excretion; all the nervous phenomena and structural changes are associated by one common bond. This granted, we may reasonably hope that if we can but get hold of one link in the chain we shall have in hand the clue to the whole mystery that the explanation of many physiological and pathological processes at present imperfectly understood may be discovered. So fixed is the law of unity and solidarity in nature, that to seize one point well is to grasp the whole, just as in the famous reconstruction of the extinct animal from a single bone by the illustrious Cuvier. The predominant force of the circulation during gestation being constructive and eccentric disposes to exudation and hæmorrhage. The vascular tension is moderated by increased secretions, as of urine, saliva, and other mucous discharges. These failing to maintain the normal equilibrium, serous effusions into the serous cavities, cellular tissue, and even into parenchyma of organs, and external hæmorrhages, chiefly from the nose, lungs, stomach, and intestines, take place. Thus abortion may be averted, and when abortion occurs this may also be regarded as a conservative event. These safety-routes failing, internal hæmorrhages into the structure of organs may occur, as into the brain, causing apoplexy. The lesson this teaches is clear and decisive; it is to relieve the "physiological plethora," in some cases by venesection, a proceeding too much neglected of late; or by bringing the pregnancy to an end. The same argument applies emphatically to the treatment of convulsions and some cases of mania. Strictly associated with the maintenance of the physiological equilibrium is the action of the lungs and skin. In gestation there is a continual tendency to excess of carbonic acid, uric acid, and urea in the blood. The free exhalation of carbonic acid is of prime importance. The quantity of carbonic acid exhaled bears a direct relation to the strain upon the system. Andral and Gavarret found that at all ages beyond eight years the exhalation is greater in males than in females. Nearly the same proportionate increase takes place in females up to puberty, when the quantity ceases to increase, and remains stationary so long as they continue to menstruate. When menstruation has ceased the exhalation of carbonic acid begins again to augment, and then again diminishes with the advance in years, as in men. Should menstruation temporarily cease at any time, the exhalation of carbonic acid immediately undergoes an increase, precisely as at the final cessation of menstruation. During pregnancy the exhalation increases in like manner. There is here a side field for experimental research. The varying conditions of women under menstruation and gestation lend opportunities for observation which can hardly be found in other subjects. It is certain that the systematic determination of the proportion of carbonic acid exhaled—with concurrent observations of blood, urine, and other excretions—might be a valuable clinical aid to diagnosis, and yield useful therapeutical indications.

ALBUMINURIA, DIABETES, JAUNDICE, PHYSIOLOGICAL IN ORIGIN.

An instructive lesson may be drawn from the direct observation of the mucous membrane of the vagina, vaginal-portion, and rectum. This membrane reveals to the eye the action of extreme vascular tension upon the peripheral structures. We see deep congestion, epithelial desquamation, mucous exudations, and frequently prominence of the superficial veins. Corresponding with this we see the darkening areola and distension of the breast, and often secretion of milk. We may surely draw from what we thus see the conclusion that similar conditions are brought about in the mucous membranes that lie beyond our sight. This is certainly true of the kidneys. We may see epithelial scales in the urine of pregnant women without albumen as well as in cases where albuminuria existed. I have also seen the condition described in necropsies of pregnant women who had died of causes independent of albuminuria. It is useful in this connexion to insist upon the peripheral mucous membrane and skin congestion attending scarlet fever. Many years ago I described a form of leucorrhœa[1] with epithelial exudations in children the subjects of leucorrhœa, and persisting after recovery from scarlet fever. Reflecting on these parallel conditions, we cannot fail to be impressed by the frequent occurrence of albuminuria in scarlet fever and the light thus thrown upon the origin of this affection. That it is an expression of high arterial tension is confirmed by the occasional presence of blood in the urine. This seems to show that the albumen comes direct from the blood by exudation. That exalted tension is the main factor, and that organic change of tissue is not necessary is further proved by the fact that complete recovery commonly follows when the pregnancy and attendant high tension come to an end. And further confirmation is seen in the establishment of persistent albuminuria and change of tissue if the tension be sustained too long or be repeated. This is strangely neglected by the ordinary physician. We may search in vain the systematic works on medicine and special treatises on urinary affections for adequate perception of the genetic light derived from the history of pregnancy. By strict

[1] Medical Gazette, 1850–51.

analogical deduction and clinical control we may in like manner explain the occurrence of jaundice and diabetes. These disorders arise and disappear with pregnancy, proving that they are not dependent for their origin upon change of structure. Of late years it has been recognised that diabetes is sometimes temporary; and this condition has been described as "physiological glycosuria." But this fact has long been familiar to those who have studied the phenomena of pregnancy. I have known several cases of women who had diabetes in every pregnancy, and only then. Its occurrence illustrates the trial of the system under the stress of high tension, and how the balance between the several secreting and excreting organs is disturbed. It has been too hastily assumed that the fundamental cause of albuminuria, jaundice, and other disorders is inflammation. Thus albuminuria is often described as nephritis. Probably the albuminuria of scarlet fever is not seldom dependent on nephritis. But the quick, almost sudden, disappearance of albumen in pregnancy when the excessive vascular tension subsides is enough to prove that it is not necessarily the result of inflammation, at least in its origin. Associated with albuminuria we not seldom see dropsy in the serous cavities and œdema in the cellular tissue; and the occurrence of eclampsia is not uncommon. Dropsy and œdema are evidence that the ordinary excretory organs are overpowered, and the balance between endosmosis and exosmosis in the capillary system is lost. The struggle between absorption and tissue feeding is too great. Hence there is transudation from the vessels under undue pressure. Effusion also takes place in the brain. I have noted distinct appearances of œdema in the brain in women who had succumbed under albuminuria and eclampsia. The action of empoisoned blood upon the exalted nervous tension may produce delirium, convulsions, and insanity. These disorders may be in many cases relieved by bleeding or by abortion; and thus removing the cause of the exalted nervous and vascular tension, and restoring the force of absorption with a quickness that proves the sources and cause of the affection. This history indicates the route of research to be followed for causes in other diseases independent of pregnancy.

PHYSIOLOGICAL PLETHORA.

The most sensible changes wrought in the blood are increase of volume, which I have expressed as "physiological plethora"; and increased coagulability, due to increase of fibrin and rapidity of circulation. These conditions maintained within due physiological limits work for the development of the embryo and the concurrent evolution of maternal structures. The growth of the uterus entails supply of new vessels and nerves. This was demonstrated by Robert Lee. With this there is enlargement of the heart—"physiological hypertrophy"—and I venture to assume, as a necessary coincidence, physiological hypertrophy of the nervous centres. This has not been proved by actual observation like the growth of the heart. It is a problem offered for solution by dissection of animals killed at various stages of gestation. From this history of "physiological plethora" and growth we may trace the evolution of tumours and of organic hypertrophy of the heart, and some cases of valvular disease and phlebectasis. The origin, the constructive stage, pertain to gestation; but the transition into pathological change mostly sets in in the post-puerperal period. Owing to constitutional fault, or causes interrupting the due course of involution, the work of metabolism or conversion of the now superfluous tissues, and of absorption and elimination, is imperfectly performed. The redundant tissue remains and forms the basis of hyperplasia, hypertrophy, or tumour.

GLANDULAR PHENOMENA.

Associated with exaltation of vascular and nervous tension we find exophthalmic goitre, Graves' disease, and arterio-capillary fibrosis. The origin and nature of exophthalmic goitre are very imperfectly understood by those who do not seek for light in the observations of gestation and menstruation. It is essentially a result of high arterial tension. Minor degrees of this affection scarcely marked enough to be recognised are not infrequent. We may see an allied condition in the normal swelling of the thyroid in young women after marriage, described in classical language by Catullus. This swelling of the thyroid, and exophthalmos, sometimes occur independently of gestation, but almost invariably within the limits of ovarian activity. I have known them to arise under dysmenorrhœa, and to be checked or relieved when the causes of dysmenorrhœa were relieved. Thus we have two instructive lessons: first, "curatio ostendit morbum"; secondly, menstruation is the simulacrum of gestation. Allied to this affection of the thyroid is myxœdema. Upon this subject I can but glance. It is one example of the remarkable part that the ductless glands play in the physiology and pathology of gestation and menstruation. The whole glandular system is brought into action. The spleen is especially active during pregnancy, probably serving to maintain the balance between arterial and venous circulation. Concurrently with this simple mechanical regulating function the spleen is certainly an agent in the process of metabolism, and so of qualifying the constitution of the blood. This is made manifest in leucocythæmia, anæmia, and lymph-adenoma. The supra-renal capsules, again, in their connexion with Addison's disease, challenge careful study in their relation to gestation and menstruation. The association with pigmentation is especially suggestive. Is the pigmentation of the breasts, abdomen, and face in pregnancy the work of the supra-renal capsules? The lymphatic glands and vessels come into active work in metabolism, in regulating the arterial and venous circulation, and especially in the processes of effusion and absorption. This subject suggests a passing reference to the application of preparations of the thyroid, pancreas, and other glands as food or by hypodermic injection in myxœdema, in pernicious anæmia, and other affections. The work of the glands during gestation and the changes wrought in them deserve to be studied in this connexion. Physiology here opens a wide field of therapeutical research. The lymphatic glands and vessels come into active work in metabolism in regulating the arterial and venous circulations, and especially in the processes of effusion and absorption, or osmosis, and in secretion and excretion.

BLOOD CHANGES.

Embolism and thrombosis are phenomena strikingly illustrated by the action of the blood in pregnancy. In excess of fibrin the blood resembles the blood of inflammation. It "cups" when drawn, and so is prone to coagulate in the vessels. This occurs under various conditions—such as the presence of toxic matter. I have known it to occur, leading to gangrene of the legs, under the influence of strong emotion. One remarkable manifestation of vascular tension and hyperfibrinated blood is seen in effusions and thrombosis in the eye. Liebreich has figured it. Maitland Ramsay[2] works out striking proofs of the light that may be drawn from the study of gynæcology. He says that "even an apparently sound eye is markedly influenced by the occurrence of menstruation." This observation emphasises the lesson that menstruation is the analogue of gestation. Similar phenomena to those seen in gestation may be seen in a modified degree under the influence of menstruation. The production of phlebectasis is an effect more of intense vascular tension than of mechanical pressure upon the vessels in the pelvis.

NERVOUS DISORDERS: INSANITY.

The study of the nervous phenomena of pregnancy goes far to elucidate the pathology of some forms of nervous disease unconnected with pregnancy. There is, indeed, clinical and anatomical evidence to prove that various forms of convulsion—as epilepsy and chorea—depend upon chronic hypertrophy or change of structure of the nervous centres. In my Lumleian Lectures I insisted upon the fact that these affections might long lie dormant unless evoked by accidental causes; and the most instructive examples of this are found in the history of pregnancy and menstruation. For instance, following on rheumatism or other primary cause, chorea is observed in childhood. It ceases under time and treatment, and is presumed to be cured. But when menstruation or pregnancy sets in the chorea returns. So it is with malarial fever. Tertiary or quotidian paroxysms reappear years after apparent cure. Surely this implies a persistent alteration of structure in the nervous centres. Continued observation supplies confirmatory evidence. The pregnancy or menstruation (the simulacrum of pregnancy) over, the diastaltic nervous symptoms often subside, to be renewed again when the peripheral excitement recurs. And, again, another lesson of paramount importance is taught by this appeal to the study of physiology. Just as we have seen that albuminuria, diabetes, and nervous diseases may be cured or averted by bringing pregnancy to an end, so we may find that similar and other diseases, persisting so long as these diseases are treated as essential morbid entities, are

[2] THE LANCET, April 15th, 1893.

quickly relieved or cured by curing the associated causative disorders of the genital system. How often do we see hysteria and even insanity long treated on general principles persist, and be promptly relieved when the provoking disorder of the sexual organs is removed? Thus pathological science is the guide to therapeutics, and therapeutics in its turn confirms the truth of science. Here, again, we must recall the fact that in addition to other toxic factors in the blood there is often excess of carbonic acid and of uric acid and urea, a condition demanding special clinical inquiry, and which may supply therapeutical indications. We know that the heart in some animals retains its contractile power for some minutes after death. So is the pregnant uterus endowed with inherent power of contraction. This may be due to reflex or diastaltic influence connected with the spinal cord; but certainly it is in great measure self-dependent. The uterus may be seen to contract after death. I myself have seen it in cases of post-mortem Cæsarean section, and I have known the child to be expelled by post-mortem contractions. Harvey relates a case. These facts are of deep physiological and pathological interest. They may throw light upon various nervous phenomena evoked during gestation which are usually interpreted as evidence of the action of the great nerve centres. Amongst the proper exercises of nerve power is the regulation of muscular and mental action; but it may be that the brain and spinal cord do not exclusively act in the strange emotional and reflex disorders sometimes manifested in pregnancy. As bearing on this subject let us cite the experience of Harvey: "It seems to me, on deep investigation, that the throes of childbirth, just as sneezing, proceed from the motion and agitation of the whole body. I am acquainted with a young woman who during labour fell into so profound a state of coma that no remedies had power to rouse her, nor was she, in fact, able to swallow. When called to her, finding that injections and other ordinary remedies had been employed in vain, I dipped a feather in a powerful sternutatory and passed it up the nostrils. Although the stupor was so profound that she could not sneeze or be roused in any way, the effect was to excite convulsions throughout the body, beginning at the shoulders and gradually descending to the lower extremities. As often as I employed the stimulus the labour advanced, until at last a strong and healthy child was born without the consciousness of the mother, who still remained in a state of coma." What can be more striking than this physiological and therapeutical experiment of the immortal Harvey? Let us follow his example. Did he not foreshadow the discovery of the reflex or diastaltic nervous force? Certainly there are no conditions under which this force can be more profitably studied than those which may be witnessed in pregnant animals.

A condition which I am disposed to class with nervous disorders is a form of deafness. I have seen cases of women in whom deafness set in with pregnancy was aggravated by succeeding pregnancies and was relieved in the non-pregnant state. Menstruation sometimes produces analogous effects. In this relation we may say a word upon hysteria. Many who neglect the study of gynæcology contend that the affection is independent of the uterus, and thence dispute the propriety of the term. They may be to some extent right; but they altogether overlook the influence of the ovaries, and, not subjecting either uterus or ovaries to objective examination, they are hardly justified in affirming that hysteria is independent of these organs. At the same time they cannot deny that the period of life which is marked by the occurrence of hysteria is that of ovario-uterine domination.

CLIMACTERIC DISORDERS.

The period of transition from ovario-uterine life to the epoch of sexual decrepitude is rarely effected without some nervous disturbance, in some cases amounting to absolute insanity. An error into which many alienists fall is to look upon cases which might strictly be considered examples of climacteric nervous disturbance as really dependent upon disease of the nervous centres. Under this error many women are secluded as lunatics who are in reality going through an epoch of strained physiological trial, and who are thus placed in imminent danger of drifting into the domain of pathology. I must not trespass upon your indulgence by referring at length to the light thrown upon the origin and essence of convulsions and some forms of insanity by the study of gestation. Convulsion occurring with or without albuminuria is commonly the result of high nervous and vascular tension. Here I cannot forbear citing again experiments shown me by Marshall Hall, for two reasons: first, because they prove that convulsions do not necessarily depend upon organic change in the nervous system, but upon intense diastaltic irritability: and, secondly, because they point emphatically to the principle of treatment. He introduced by subcutaneous injection a minute dose of strychnine into a frog. So long as the animal was allowed to remain undisturbed there was no convulsion; but a shake of the table caused convulsion immediately. This experiment finds a singular parallel in the convulsion of gestation. So long as the pregnant woman prone to convulsion is kept perfectly quiet, physically and mentally—that is, so long as there is no peripheral irritation to excite diastaltic action—the convulsion may be averted. This explains the use of chloroform. During the artificial anæsthesia the nervous centres are deadened and peripheral irritation is averted and shortened, and the subject is saved from the ofttimes injurious effect of shock. In this connexion I am tempted to refer to the theory that vomiting and various physical and emotional phenomena witnessed in pregnancy are at once evidence of exalted nervous tension and are really analogous to convulsion. It is nature's way of moderating excess of tension, and thus of averting dangerous outbreaks. So much for the more purely physiological aspect of the subject. I have discussed some of the relations of nervous diseases and insanity to gestation on other occasions. I will simply here repeat the strong opinion I have formed from clinical experience that many cases of mental disorder, ranging from excessive psychical, emotional, and diastaltic mobility to the graver forms of insanity, are due to functional disorder or disease of the ovario-uterine system. Although this truth has been more fairly recognised of late by some physicians who study mental diseases, there still remains the fact that women labouring under insanity do not receive the benefit of that first fundamental clinical law which directs interrogation of all the functions and all the organs. If this law were duly observed not a few women certified as insane might be cured; and many more might be relieved of peripheral irritation, which, if not mainly causative of their insanity, is certainly an aggravating factor. Surely insane women have as just a claim to relief from the distress which arises from ovario-uterine disorder as have those whose intellect is sound. The logical corollary from this argument, which I have advanced elsewhere, is that a skilled, thorough inquiry should be instituted into the bodily condition of women confined in asylums.

A form of insanity of a different type from that which arises in pregnancy occurs under the opposite conditions of puerpery and lactation. It is often the result of exhaustion, of defective nutritive power, and of deterioration of the blood from the ingestion of noxious elements. Weaning is necessary to spare the demand upon the nutritive function. In many cases, where there is no inherited or other pre-existing affections of the nervous centres, recovery takes place. Here, again, it is of supreme importance not hastily to regard these subjects as lunatics, but rather as women passing through an epoch of overstrained physiological trial.

ABSORPTION; INVOLUTION; TUMOURS; FATTY AND CALCAREOUS PROCESSES.

Let us now trace briefly the second great force evoked when gestation is accomplished—namely, the sudden fall of tension and the substitution of absorption for construction. The tide turns from the periphery to the centre. It is true there is developed a new seat of peripheral activity in the breast for the secretion of milk. But this act is intimately associated with the process of absorption. Two leading objects are obtained by their harmonious action. The removal of the now effete tissue of the uterus, heart, and liver, and the return to the blood of effused fluids from the serous cavities and cellular tissue, is the first object. The second is the secretion of milk. If the physiological process goes on smoothly the redundant tissues undergo fatty metamorphosis. This converted matter is partly eliminated by secretion or excretion, and part goes to the formation of milk. Here we see a beautiful illustration of the old aphorism: 'Nature does nothing in vain." Now, if any disturbance or defect in the course of lactation occur, the organs losing their proper mode of relief, the process of fatty metamorphosis is arrested, involution or return to the ordinary condition is hindered, and the physiological hypertrophy passes into pathological hyperplasia. In this way we may trace the origin and development of tumours, especially of the homologous kind, and other structural alterations. Fatty metamorphosis and elimination give way to fatty degeneration. This is the

history of many cases of fatty heart, fatty liver, and Bright's disease; and where this change does not take place there is danger of persistent enlargement of the heart. I have traced many such cases following upon the failure of lactation. In relation to fatty and calcareous action, that singular affection, mollities ossium, claims attention. It is a remarkable example of the work of menstruation and gestation which deserves more investigation than it has hitherto received. Here, again, experiment comes to our aid. Fehling of Basle removed the ovaries in nine cases with the object of curing the disease; eight of the cases recovered and the progress of the disease was checked. He noticed unusual vascularity of the appendages, the arteries being enlarged as well as the veins. This natural experiment of gestation has instructive application to the solution of the problem of fatty degeneration in sterile women and even in men. It applies also to calcareous degeneration. In close connexion with this subject I may also call attention to the history of fatty metamorphosis in the placenta first described by me in 1851.[3] One remarkable fact in the history of fatty and calcareous degeneration is witnessed in the deposit of calcareous matter in the placenta, not necessarily as a result of disease, but rather of excessive, perhaps conservative, physiological action. The study of this condition supplies an important link in the history of calcareous deposits in the heart and bloodvessels. In pregnancy it is seen not only in the placenta, but also in the cranium. Rokitansky (1838) and Ducrest (1844) observed osteophytes or osseous neoplasms, or a tissue resembling bone, outside the dura mater. This has been verified by many observers, myself amongst the number, since. These concretions suggest the hypothesis that they are a part of the excess of ossific material prepared for the building up of the fœtal skeleton. I have also advanced the opinion that they have some relation to the preparation of milk, in which fluid a considerable proportion of calcareous elements exist. Another lesson suggested by this study is the strong absorption force following on delivery, especially when intensified by hæmorrhage, in the proneness to absorption of any noxious stuff that may come within the range of the absorbing organs. We are familiar with the sucking-in of decomposing matter lying in the uterus or vagina, causing septicæmia. In like manner observation in hospitals especially has proved how germs carried in the air may be absorbed by the lungs, and in this way also produce fever. Direct experiment has also shown me that poison may be absorbed through the unbroken skin.

Here I may offer an hypothesis, the result of some experience and much thought—that the germs of disease may be inhaled by the lungs or absorbed from the genital canal. It was at one time believed that gestation retarded the progress of phthisis. It may be occasionally true that phthisis does not make rapid advance during pregnancy, but it is certain, according to my observations, that it makes accelerated progress from the moment of parturition. How is this? Not only is the circulation invaded by the usual noxious stuff of puerpery and external sources, but it draws in the tuberculous germs lying more or less dormant in the lungs. Recently Dr. A. Guzzoni of Turin (1890) has performed experiments in point. He introduced into the vagina of a guinea-pig a piece of tuberculous lung of a cow and a little dried powder of phthisical expectoration. The animal presented in the left lung a tuberculous nodule, and the fœtus showed tubercle in the viscera, lungs, spleen, and liver. The propagation of syphilis is a familar experience. Facts of this kind point forcibly to the control of the absorptive faculty to diminish the risk of absorbing or intensifying disease.

THERAPEUTICAL APPLICATION OF FORCES OF GESTATION.

I have for many years turned the natural and intensified absorption-force to therapeutical profit by injecting iodine and other agents into the uterus and vagina. Thus I have seen hyperplasia and hypertrophic enlargements of the uterus dispersed. So active is the absorption process through this route that the whole system is pervaded. The starch test applied to the skin and saliva reveals the permeation of iodine. I confidently believe that this method admits of further use in the treatment of other than uterine diseases. In many cases it may prove more practicable than subcutaneous injection. Thus we may chase a poison through the system, sending the antidote after it. When considering the profit to be drawn from active absorption, and the means by which this force can be increased, we must not overlook the means of controlling that force in keeping it within useful limits. Much may be done by supplying the system with proper nourishment, and sometimes we may fill the vacuum by transfusion.

[3] Transactions of the Royal Medical and Chirurgical Society.

ATROPHY.

Another phase in the history of absorption is seen when this process is carried to excess. Once started it may pass the physiological bound and result in atrophy. Here we are reminded that nature is often deficient in the power to keep her forces within useful limits. Action once started, howsoever beneficial in design and character, is apt to run into extremes. This is seen in hæmorrhage, in arterial tension, in nervous tension, in metabolism—indeed, in all the functions of the body. It is here that the physician steps in to apply those means which enlightened judgment of the forces at work and clinical experience give him to control and guide the natural forces to the execution of their proper office.

SUMMARY.

And now it is more than time to conclude. Let me resume the main points set forth. The political bearing of the argument tends to show how general and special medical science has suffered from the vicious subdivision of medicine into sections represented by special colleges and societies constituted and acting to the neglect of obstetrics and gynæcology. Gestation and menstruation, regarded as a natural experiment, throw the clearest light upon the origin, essence, and treatment of many diseases. These points often elude the recognition of the physician, and he is thence often driven to false conclusions as to etiology. The observation of the diseases which arise during gestation suggests the hypothesis that the primary or initiative factors of diseases spring from the periphery of the system, and that the action and changes of structure of the central organs and glands are responsive and secondary. The study of pregnancy and puerpery brings before the observer the most striking examples (1) of the working of the great forces of exalted nervous and vascular tension in the production of new tissue; (2) of the converse force of active absorption; (3) of the influence of hæmorrhage; and (4) of blood changes and metabolism. Those who neglect this study are prone to associate disordered function and secretions with special organic change; whilst in truth all may begin with a common cause trying the whole system, the weaker organ breaking down under exaggerated physiolcgical strain. Many of the problems mooted are subjects for inquiry. I do not pretend to have solved them. Enough if I can help to point out one source of light to guide the inquirer. If physiology be the rational basis of pathology, may we not say that gestation—the most prolific source of physiological light—is the surest threshold of medicine? One explanation of, if not an apology for, the neglect by the ordinary physician of what obstetrics can teach may lie in the fact that the opportunities of observation which fall in his way are rare. What is not sought is rarely found or appreciated. The more incumbent is it on the gynæcologist to cultivate in a liberal spirit that source of light in which he moves, and so to help to restore the solidarity of medicine.

Let me again thank you for the honour conferred upon me by this society. That honour, I feel, is enhanced by the consciousness that this graceful act binds me with you, under the inspiration of the *genius loci*, to do honour to the memory of William Hunter, by continuing the work of which he is one of the most illustrious architects.

IS COLLES' LAW A MISNOMER?

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THE generally accepted doctrine that the mother of a child that suffers from inherited syphilis cannot contract syphilis from her own offspring has been known as "Colles' law" not only in this country, but by the whole medical world. It was first called a "law" by Diday[1] in the year 1854, and not by Mr. Hutchinson, as has been erroneously stated by Dr. McDonnell, editor of Colles' works.[2] Having lately had

[1] Traité de la Syphilis des Nouveau-nés, p. 236. Paris, 1854.

[2] Transactions of the New Sydenham Society, vol. xcii., p. 288. London, 1881.

occasion to consult the foreign literature on this subject, I have been surprised to find that by some writers the paternity of this doctrine has been disallowed to Colles and attributed to Baumès, and that this view has been upheld in such well-known and widely read text-books as those of Fournier[3] and Kaposi.[4] Fournier, with some rhetorical effusion, exclaims: "Rendons à César ce qui appartient à César," and replaces the name of Colles by that of Baumès. Kaposi, however, contents himself by saying that it is more correct to call it after Baumès; and Bergh expresses himself in a similar manner.[5] Finding that Colles' book[6] was published three years before that of Baumès,[7] and as the meaning of Colles' statement appeared to me to be quite clear and definite, I was interested to find out on what grounds the Continental writers tried to sever his name from this law, the formulating of which must always be regarded as a high testimony to his powers as a clinical observer. The perusal of what has been written on this matter has convinced me that the alteration introduced by the writers above mentioned is in no way justified, some of Colles' statements having been either misconstrued or misrepresented. I believe that the following presentation of the arguments adduced by these writers, and the criticism of those arguments, in the light of Colles' original text, will prove their fallacy. I wish it, however, to be understood that in the following remarks the validity of Colles' law is not discussed, but only the history of its origin.

To enable the reader to judge I shall give first of all a short sketch of Colles' own remarks on this subject. They are to be found under the heading: "The Appearance and Nature of those Diseases which are communicated by the Infant to the Nurse," at the end of Chap. xiii. (pp. 283 to 304). Their object (as is clearly seen from the concluding remarks of Chap. i., p. 24) is not to discuss the question of the mother's state of health before and after the birth of a syphilitic child,[8] but to prove the infectious nature of the secondary symptoms of the child, and at the same time to show the identity between the disease transmitted by the child to the nurse and that acquired by the parents and transmitted to the child. On these two points, both at the time when Colles wrote and afterwards—in fact, until the conversion of Ricord by Rollet—the teaching of John Hunter was dominant. Colles' object was to disprove the correctness of Hunter's teaching and to prove the identity of the acquired and congenital forms of syphilis. He therefore begins by giving a description of the nurse's disease, which commences at the nipple and is followed by constitutional symptoms. He then remarks that he has never seen the nipple inoculated when the mother was the nurse of the child. He further relates a case which appeared to form an exception to this "curious fact," but which on closer inquiry proved to be a case of syphilis acquired by the child after birth and given to the mother. In commenting on this case he says:—

(*a*) "As yet I have not seen any instance in which an infant infected by the mother communicated a venereal ulcer of the nipple to her."

Returning to his subject he then speaks about the treatment of nurse and child, or nurse alone, by mercury. In the remainder of the chapter he shows how the disease, which has been traced from the parents to the child, and from the infant to the nurse, might be communicated by the nurse to her husband, and might also, through secondary symptoms, spread to the dry-nurse or any other person handling the child.[9] In proof of this he gives three cases, of which the first only at present is of interest. A servant girl is infected by a child, both parents of which had syphilis two years before its birth. Here Colles remarks:—

(*b*) "And let it be observed that the mother had not in any way suffered from the disease of the child. She had not received any infection from her own child, yet the disease was capable of infecting the servant girl" (p. 293).

These statements will be referred to in the following remarks as (*a*) and (*b*).

The four cases referred to are the only cases given by Colles—i.e., the first, to show how mistakes might occur between acquired syphilis in infancy and congenital syphilis, and the last three to show how congenital syphilis might be the source of the acquired form. Not one of these cases is intended as a corroboration of Colles' law. In fact, no attempt has been made on the part of Colles to demonstrate this law by enumerating any personal observations. Thus, having accomplished his task of describing the disease communicated by the infant to the nurse, and of establishing its specific nature, he winds up by once more mentioning the fact, "well deserving our attention," of the immunity of the mother. This is referred to altogether three times, apart from the two remarks already quoted—viz., twice when he introduces the subject (p. 285) and once in the concluding sentence of the chapter. The three references are as follows:—

1. "The following fact appears to me very deserving of notice. I have never seen or heard of a single instance in which a syphilitic infant (although its mouth be ulcerated) suckled by its own mother had produced ulcerations of her breasts; whereas very few instances have occurred where a syphilitic infant had not infected a strange hired wet-nurse, and who had been previously in good health."

2. "It is a curious fact that I have never witnessed nor ever heard of an instance in which a child deriving the infection of syphilis from its parents has caused an ulceration in the breast of its mother."

3. "One fact well deserving our attention is this: that a child born of a mother who is without any obvious venereal symptoms, and which, without being exposed to any infection subsequent to its birth, shows this disease when a few weeks old, this child will infect the most healthy nurse, whether she suckle it or merely handle and dress it; and yet this child is never known to infect its own mother, even though she suckle it while it has venereal ulcers of the lips and tongue."

Of these three different ways of stating Colles' law, that which I designate No. 1 is by far the most definite. It must be stated that Colles was well aware that the mother of a syphilitic child need not present, either before or after the birth of the child, a single symptom of syphilis (pp. 266–268), and that in undoubted cases of congenital syphilis the most careful examination might reveal nothing except the history of previous disease in the father. Particular stress must be laid on this fact, as it has not been pointed out by any of the writers on the subject. Therefore, the rule as formulated in No. 1 is the fullest and most precise expression of the fact known as Colles' law, and I am not aware that it has been formulated in a better or more concise manner by any subsequent writer. Almost the same may be said of No. 2. The difficulty arising from the interpretation of the words "its parents" is not real. Certainly "its parents" might mean both parents or either of them; but that the last interpretation is undoubtedly the correct one follows from the fact that, according to Colles, the child may derive syphilis from one or both parents (p. 286), and that the mother might to all appearance escape altogether (p. 266). The interpretation of any text must be given in conformity with the views of the writer on the entire subject, and, although I am quite aware of the difficulty which the words "its parents" might present to a purely philological mind, the meaning is clear to any medical man who has read the whole of Colles' book. In the same spirit one has to read No. 3. Here the words "who is without any obvious venereal symptoms" are open to attack, as the possibility of past syphilitic symptoms is not excluded. It must be admitted that the meaning here is less clear than might be desired, but in the face of the two former statements one has without doubt only to deal with a certain laxity of expression.

I have before quoted, under (*a*), a remark of Colles', which also suffers from indefiniteness of expression even to a greater degree than No. 3. That a child "infected by the mother" does not communicate the disease to her nipple is a truth which forms only part of Colles' law, and cannot be considered as an adequate expression of its whole meaning. The phrase merely states the fact that

[3] L'Hérédité Syphilitique. Paris, 1891.

[4] Pathologie und Therapie der Syphilis. Vienna, 1891.

[5] Congenitale Syphilis bei paterner Infection. Unna's Monatshefte für Practische Dermatologie, vol. xvii., No. 3, p. 117.

[6] Practical Observations on the Venereal Disease and the Use of Mercury. London, 1837.

[7] Précis Théorique et Pratique des Maladies Vénériennes. Paris, 1840.

[8] See pp. 264–268.

[9] It is difficult to believe that more than forty-five years after Colles' observations, and after the work done by Rollett and Fournier, the following should appear in a text-book of surgery: "Before speaking of any special medicines for infants affected with syphilitic iritis, I would remark on the absolute necessity of their being suckled and not brought up by hand. The milk of a healthy wet-nurse would, of course, be infinitely preferable to that of an infected mother; but in the lower classes of society, among whom the disease is almost exclusively met with, the services of a wet-nurse can hardly be obtained." According to this statement it is only the poorness of the poor which prevents the incalculable mischief which might be produced by engaging a healthy woman to suckle a syphilitic child. The above appeared in the third edition of Holmes and Hulke's System of Surgery, vol. ii., p. 60 (Diseases of the Eye, by J. Dickson, edited by J. W. Hulke), in the year 1883.

as the mother is actually suffering from syphilis she cannot of course be reinfected. In the same way the remark (*b*) only says that a mother who had previously contracted syphilis and transmitted the disease to her offspring cannot be reinfected by the latter. Neither of these remarks was made with reference to cases adduced for the purpose of proving Colles' law, as has been erroneously stated [10] and, although they illustrate part of it, they were not intended to express its full meaning. They merely show that the mother who has had at any time symptoms of syphilis does not contract a chancre of the nipple from her syphilitic child. The "remarkable" observation first made by Colles is that, "whilst wet-nurses not infrequently contract chancre in the nipple from nursing syphilitic infants, such accidents never happen to the infant's mother."[11] That mothers might give birth to syphilitic infants without ever exhibiting in themselves any symptoms of syphilis was known to Colles. It is well to bear in mind that Colles' observations were not made to fit or support any particular theory. His work, the sole object of which was practical utility (p. viii), was written—to use his own words about another worker on the same subject—"by a man who had no particular theory or doctrine to support, who seems to have written for the mere purpose of stating facts, and recording an account of the propagation of this afflicting disease" (p. 24). It may be doubted whether Colles fully realised the theoretical bearing of his law. Regarding those cases in which the mother remains free from symptoms, he says that they are "so strange and so difficult to explain that nothing short of actual observation could induce us to allow the fact" (p. 266). He does not even attempt their explanation, but, whatever their explanation may be, whatever conclusions may have to be drawn from them, he was aware of their existence. He simply stated them as facts of actual observation, just as he stated it as a fact of mere clinical experience that a syphilitic child nursed by its mother does not infect her. No better and more definite expression of this rule could be wished for than Colles' own words, quoted under No. 1, by which he introduces the subject under discussion. It will be found that reference to this most conclusive expression of his law is either omitted by his detractors or has been misconstrued in a manner neither warranted by his words nor by his teaching in general, while Diday [12] in 1854 quoted the same words for the first time under the denomination of "Colles' law."

In order to discuss the different interpretations which have been given to Colles' words it seems best to record them in the same chronological order as they appeared in the controversy evoked by a paper by Behrend.[13] He first questions whether Colles really meant what is now understood as the law bearing his name. His whole argument is contained in the following sentence: "Moreover, up to the most recent date all the authors who reproduce the above rule formulated by Colles have not noticed that its framer, in corroboration of it, communicates the history of a case, and mentions expressly that two years before he had attended the father as well as the mother of the child for secondary syphilitic ulcerations, and that he does not speak about mothers who never showed a symptom of manifest syphilis, but only of those who had no visible (*sichtbare*) venereal symptoms, and who consequently (*mithin*) had latent syphilis." Behrend, therefore, concedes to Colles only the authorship of that part of the law which says that a mother who has had syphilis is not liable to be infected by suckling her child, while he attributes to Baumès the other part which says that the mother who has apparently escaped syphilis is not infected by the child to which syphilis has been transmitted from the father through her. To have united these two parts into one law, which says that a child suffering from hereditary syphilis does not infect its mother by suckling, is, according to Behrend, due to Diday, and he therefore considers the latter as the real author of what is commonly called Colles' law.[14]

In reference to the case alluded to by Behrend, and previously mentioned by me, I have to repeat that it was not given by Colles in corroboration of his law, but to show how congenital syphilis in the child might be the source of acquired syphilis in the servant. He only mentioned by the way the fact that the mother was not infected, while the servant was. The second part of Behrend's sentence refers to No. 3. I have already mentioned that the words "without any obvious venereal symptoms" do not *exclude* the possibility of venereal symptoms in the past, but I fail to see how they can *prove* the existence of former symptoms. If this kind of argument is to hold good a general treatment of the human race by mercury would be indicated. Behrend quotes neither No. 1 nor No. 2, and therefore overlooks the fact that what he ascribes to Diday has already been said in identical words by Colles. Behrend's statements were accepted by H. and M. Zeissl, and incorporated in their well-known text-book.[15] To this Diday and Doyon [16] replied by quoting No. 2, and remarking that they understood the words "without any obvious venereal symptoms" as meaning that the mothers had not had at any time any symptoms, while Behrend understood them to mean that there were no symptoms at the time of observation. Although the interpretation of Behrend is correct from a strictly grammatical point of view, I have pointed out before that in the light of No. 1 and No. 2 the interpretation of Diday alone is admissible, it being true to the sense if not to the letter. He adds that Colles had been understood in the same sense by Ricord and Fournier. In 1883 Behrend's answer appeared [17] under the title, "Is the so-called Colles' Law a Law or not?" He quotes in full the case to which he referred in his first communication, repeating his erroneous statement that Colles had given the case to prove his law, and he also repeats, without mentioning No. 1, that the equivocal words in No. 3 point to present and not to past symptoms. His attention being drawn by Diday to No. 2, he contends that the words "its parents" *must* be understood by everyone as both parents, and that this was meant by Colles. As shown above, the words *might* be understood as meaning either both parents or one of them, but they must be understood in the latter sense for the two reasons already given—viz., that Colles states himself that the child may derive the disease from one or both parents, and that he was aware of the cases in which the mother apparently escapes. Behrend winds up by repeating that, in adding the "additional" thesis of Baumès to the "original" thesis of Colles, Diday formulated what is wrongly called Colles' law. Behrend's reply was followed directly by an article from Diday and Doyan [18] entitled "The Letter and the Spirit of Colles' Law." The writers insist upon the fact that not one of Colles' cases is intended as a proof of his law; that the meaning of the words "its parents" in No. 2 is not to be interpreted in the sense in which Behrend understands them; and that if they are properly understood as signifying "either of them," Colles' statement quoted under No. 2 is identical with the law formulated by Diday. Here the controversy between Behrend and Diday ends. It thus appears that Colles' most precise expression of his law No. 1 was never adduced on either side; that No. 2, misinterpreted by Behrend, was considered to be identical by Diday with his own enunciation of the same law; and also that the purpose for which Colles published his cases being misunderstood by Behrend, their importance and bearing were not rightly estimated by him. A remarkable feature of this discussion is that it was Diday—to whom Behrend gives credit for having rightly understood and best formulated what is meant by Colles' law, and to whom he consequently grants its authorship—who, finding his views unmistakably expressed by Colles, first introduced the expression, "Colles' law." He twice gracefully declines the honour which has been thrust upon him, thus vindicating Colles' rights, and protecting himself against "his friends." A short review of Behrend and Diday's papers was given by Michelson.[19] He contents himself with merely stating the case without taking any side, but he expresses his astonishment that Diday declines the honour offered to him by Behrend. One might have expected that Diday's definite declaration would have put an end to this controversy, settling it in Colles' favour. This expectation was not realised, however, for a paper was published in

[10] Baeumler (Handbuch der Syphilis, second edition, 1876, pp. 63 and 64) draws particular attention to the fact that Colles does not give a single case in proof of the accuracy of what is now known as Colles' law, and, as will be seen later, this same fact has been repeatedly emphasized by Diday.

[11] Hutchinson, on Syphilis, London, 1893.

[12] Loc. cit., p. 284.

[13] Gustav Behrend: Zur Lehre von der Vererbung der Syphilis. Berliner Klinische Wochenschrift, 1881, Nos. 8 and 9, pp. 107-109 and 124-127.

[14] Loc. cit., p. 126.

[15] Lehrbuch der Syphilis, fourth edition, Stuttgart, 1882.

[16] Annales de Dermatologie et de Syphiligraphie, 1882, vol. iii., pp. 288-296.

[17] La soi-disant Loi de Colles, est-elle une Loi ou non? Annales de Dermatologie et de Syphiligraphie, 1883, vol. iv., pp. 71-78.

[18] La Lettre et l'Esprit de la Loi de Colles. Annales de Dermatologie et de Syphiligraphie, 1883, vol. iv., pp. 79 to 86.

[19] Unna's Monatshefte für Practische Dermatologie, vol. ii., p. 232. Hamburg, 1883.

1889 by M. Morel-Lavallée,[20] who, under the advice of Fournier, once more undertook to examine the merits of the contradictory statements previously made. Not a single argument that had not been previously adduced by Behrend was brought forward by M. Morel-Lavallée to strengthen his assertions, nor has one of the old arguments been shown in a different or a more convincing light. He does not dispute, as Behrend did, that the words "its parents" might be interpreted as "either parent," but this interpretation he considers to be "slightly forced." He again lays the whole stress upon the two quotations (*a*) and (*b*), which to him contain the "striking and blinding proofs" that Colles never meant to speak of cases where the father was syphilitic and the mother healthy. Of these cases, however, Colles did speak; in fact, he particularly drew attention to them on pages 266 to 269, he was well acquainted with their recurrence, and his teaching was that the hereditary syphilis of the child involves no danger to the nursing mother. M. Morel-Lavallée again adduces the same two cases of Colles, of which one was given to prove the infectiousness of the hereditary disease and the other to show how it might be mimicked by the acquired form. Both these cases exemplify that part of Colles' law which is explained by the unity of the two different forms of syphilis. Therefore, the remarks attached to them only refer to these individual cases, and cannot be quoted as the full expression of Colles' law. Under No. 1, No. 2, and No. 3 I have given above the three different ways in which this law is presented in its entirety in Colles' book, while (*a*) and (*b*) only represent its more restricted truth. M. Morel-Lavallée founds his argument on these casual remarks, and by generalisation he tries to throw doubt on the most definite statements made by Colles; but while he does not strengthen Behrend's case by adducing anything useful in argument or fact, he proceeds to weaken Colles' case by such tactics of interpretation that I cannot allow them to pass unexamined. The words "the most healthy nurse" furnish the basis for the following remarks—viz., that what Colles considered as the surprising feature was the fact of the healthy nurse being infected, and not the fact of the mother escaping infection, and that Colles would have been less surprised to see the nurse contract a chancre of the nipple if she had been infected before—in fact, he would have expected the healthy nurse to escape and the syphilitic mother to be reinfected. According to M. Morel-Lavallée, Colles was under the idea that the syphilitic infection diminishes the resistance of the constitution, and therefore increases the predisposition to reinfection—that, in fact, a healthy person, and still more a "most healthy" person, was less liable to be infected than a person already affected with the disease. But there is not a single word in the whole of Colles' book to bear out what are given here as his views, nor does M. Morel-Lavallée, while he faces the "danger of further diminishing Colles' merit," even attempt to adduce a reason for his supposition. Let M. Morel-Lavallée re-read more than the few pages of Colles' book which refer to the suckling of syphilitic children, and he will certainly find that even the few pages in question were written to prove the identity of acquired and congenital syphilis. He will also find that the negative results of inoculation experiments made with the syphilitic virus from one affected part into other parts of the same body were known to Colles. The meaning of the words "the most healthy nurse" appears most obvious—i.e., a nurse who never had any trace of specific disease, about whom, therefore, no doubt could exist that the disease was contracted from the infant, and not from any other source. M. Morel-Lavallée detects the same error in No. 1, where Colles says that "very few instances have occurred where a syphilitic infant had not infected a strange hired wet-nurse and who had previously been in good health." M. Morel-Lavallée exclaims: "This is always the same turn of thought; if the nurse had been tainted previously, Colles, it seems, would have been less surprised to see her (re)infected than to see her contaminated, having previously enjoyed good health." How else, or in what plainer words, could Colles have said what he wished to say—viz., that the nurse up to the time of infection by the child was healthy and free from syphilitic infection, and that therefore the origin of the infection could be established beyond doubt?

As the indefatigable champion of Colles' priority Diday[21] appeared again with a paper called "An Inquiry into Paternity: Colles? Baumès?" He rightly refers the reader to his former articles and the arguments adduced therein against Behrend, of which not one has been invalidated by M. Morel-Lavallée, and he again points out that his own formulation of Colles' law, which has been generally recognised as a correct and complete one, is identical with that of Colles. To this M. Morel-Lavallée replies in a letter,[22] in which he says that he withdraws from the discussion, although still conserving his opinion, because the whole question is one of translation and interpretation of an English text, a matter on which a man ignorant of the subject of syphilis could give an opinion if he knew English sufficiently well. Still, he mentions that Fournier agrees with him. Why quote Fournier if the opinion of a syphilograph is not necessary and of less value than that of an English scholar? I fully agree with M. Morel-Lavallée that a sufficient knowledge of English is all that is necessary to understand the meaning of Colles' words, and I trust that they will be understood in the future in the same sense which led M. Diday to affix Colles' name to the remarkable law first pointed out by him.

As regards Baumès, M. Morel-Lavallée adopts Behrend's view that what since 1854 had been understood under the name of Colles' law consists of two parts—viz., one part pronounced by Colles and the other by Baumès—and that these two parts were first united into one law by Diday. If it were true that Baumès had introduced a fact not observed by Colles, which has to be added to Colles' observations in order to establish Colles' law, why replace Colles' name by that of Baumès and not by that of Diday? According to Behrend and Morel-Lavallée, Diday first enunciated in an unmistakable and precise form what was wrongly called Colles' law, though called so by Diday himself; Behrend, therefore, consistently claims for Diday the authorship of Colles' law, restricting Baumès' merit to the "additional" thesis. M. Morel-Lavallée, on the other hand, in contradiction to his own statements, replaces the name of Baumès for that of Colles, although either of them, according to him, originated only part of the latter's law. To this inconsistency he might have been driven by the awkward position of otherwise having to give to the law a name the bearer of which declines its authorship. It has further been argued in favour of Baumès that, while Colles did not support his law by detailed facts, Baumès did so; but on looking at the two observations which the latter relates (two mothers, one suckling five, the other two children, without being infected) it is found that in not one of the infants was the mouth affected, although they showed other signs of hereditary syphilis. Therefore, these cases do not fulfil the principal condition which every case of this kind has to meet, and which has been repeatedly insisted upon by Colles. As they do not even show that the possibility of a local infection was given, they cannot demonstrate the immunity of the mothers. Here I may mention an interesting fact communicated by Diday.[23] In 1835, two years before the publication of Colles' book, Baumès visited England, bent on studying the medical schools of our country. At this time the original ideas of Colles, already professed by him, must have been known, and it is not impossible that Baumès might have learned Colles' law either from his own lips or through those influenced by his teaching. Therefore, to call the law after Baumès is most obviously a misnomer and in direct opposition to the facts granted by those who are responsible for it. The law, if not called after Colles, might have been called after Diday; but here the difficulty arose that Diday, knowing his indebtedness to Colles, disclaimed any share in the framing of the latter's law. Baumès is only the figurehead under which the unsuccessful attempt on Colles' rights were made.

I cannot look upon the whole question from as serious a national point of view as M. Morel-Lavallée, who talks of a restitution of scientific priority by England to France.[24] Colles had no better advocate than the Frenchman Diday, and he had no greater detractor than the Frenchman Morel-Lavallée. I should not have entered into the discussion of this subject again had not the criticisms of M. Morel-Lavallée been repeated as historical truths in such text-books as Fournier's, Kaposi's, and Zeissl's, which, being widely read, have given undeserved propagation to the most arbitrary dealing with definite historical facts.

Welbeck-street, W.

[20] Affaire Colles-Baumès. L'Union Médicale, troisième série, vol. xlvii., pp. 410-418.

[21] Diday et Doyan: Une Enquête sur la Paternité: Colles? Baumès? L'Union Médicale, 1889, pp. 576-579.

[22] L'Union Médicale, 1889, p. 790. Letter dated May 23rd.

[23] L'Union Médicale, 1889, p. 79.

[24] Loc. cit., p. 418.

A CASE OF SPASMODIC STRICTURE OF THE PYLORUS; PYLOROPLASTY; RECOVERY.

BY R. SHALDERS MILLER, M.B. LOND., F.R.C.S. ENG.

THE subject of this operation was a single woman aged forty-eight years, of a highly neurotic temperament. About five years ago she developed, somewhat suddenly, intense dyspeptic symptoms, with vomiting of much coffee-ground material, accompanied with great pain and epigastric tenderness. No tumour could be detected. Gastric ulcer or possible malignant disease was suspected, but the symptoms gradually disappeared under medicinal and dietetic treatment. In the spring of 1891 she had a mild attack of epidemic influenza. Except for this she did not require medical attendance until the spring of 1892, when very severe and persistent vomiting set in, but without the appearance of coffee-ground matter. There was again epigastric pain, much increased by food, but no tumour could be felt. There was no elevation of temperature. The case was for a time considered to be due to nervous disturbance, but the patient's general condition became so rapidly worse, with intense pain and emaciation, that cancer was feared, and this opinion was unhesitatingly confirmed by an eminent medical authority. At this time the patient was fed almost entirely by nutrient enemata. Every possible anti-neurotic remedy had been tried without the slightest result, and hypodermic injections of morphia had to be regularly given at night. After these injections food was more easily tolerated by the stomach than at any other time, but such food was found usually to accumulate in the stomach for a day or two, and was then vomited again with much added fluid. Constipation was extremely obstinate, and purgative enemata produced but little evacuation, the passage of which was attended with great suffering. The emaciation and weakness were so severe that from September, 1892, till the date of the operation the patient was entirely bedridden. The stomach was for a time considerably dilated, but became less so by the end of 1892. The menopause was also in progress and catamenia ceased in November, 1892. The patient's condition having been stationary except for slight, gradual, and increasing loss of flesh since the spring of 1893, the operation, so lucidly described by Mr. Pearce Gould,[1] was recommended and instantly consented to by her.

The only special preparations for the operation, which was performed on Aug. 31st, 1893, were the placing of the patient on a hot-water bed and the administration of a dose of quinine so as to render aseptic the contents of the stomach. The steps of the operation were essentially identical with those described by Mr. Pearce Gould, and therefore need no recapitulation, but the conditions found after the abdominal section was made were by no means the same as in his case. The stomach was very little dilated, but the first part of the duodenum was very decidedly so; there were no peritoneal adhesions, and by grasping the gastro-duodenal isthmus obliquely between the finger and thumb a fair-sized pyloric orifice could be easily made out. For this reason the abdominal wound was enlarged upwards and downwards to allow of a free examination of the organs. The liver, stomach, duodenum, omentum, and transverse colon were found to be perfectly healthy. The stomach was then opened by an incision in its long axis near the pylorus and the fore-finger introduced so as to feel as much as possible of the gastric mucous membrane. Nothing abnormal was discovered. The finger was then passed through the pylorus and was immediately grasped by the sphincter of that aperture. The contraction, however, quickly subsided and the finger was passed down the vertical portion of the duodenum as far as the orifice of the common bile-duct, which could be readily felt and appeared to be normal. The pyloric sphincter presented a thin, sharp, internal edge, and with the finger inside and the thumb outside the muscular circle was felt to be triangular in section. The incision in the stomach was then continued into the duodenum, and the wound treated as in Mr. Pearce Gould's case. The abdominal wound was closed with numerous silkworm gut sutures and dressed with iodoform powder and alembroth gauze. Ether was skilfully administered by Dr. A. W. Wheatly.

The progress of the patient after the operation as regards symptoms may be briefly summarised as a negation of her previous condition. The highest temperature attained was 99·6° F. on the day after operation, and thereafter was usually a little subnormal. Feeding by rectum was continued, but gradually reduced after the third day, and discontinued in three weeks. Meat juice and prepared food made with milk were given the day after the operation, and the diet daily increased, meat being given, minced, a week later. There was no vomiting on recovering from the ether, and except for the rejection of a little surplus beef-tea on the fourth day the patient was never sick again. She was very hungry and took large quantities of food by the mouth, and never complained of pain after her meals. The dressing had to be changed on the third day in consequence of its becoming very damp from perspiration. The wound was found to be well closed, and indeed healed, except here and there the superficial part of the skin had not quite united, a result, no doubt, of its being kept saturated with perspiration. All the parietal stitches were removed on the twelfth day. The bowels acted on the fourth day with an enema of castor oil and turpentine, the use of which greatly relieved the flatulence. This had been rather troublesome, but not more so than before the operation. Small doses of aloin and belladonna were given three times a day, and in a week the motions were formed, though the rectum had to be excited every second or third day by a small enema of castor oil and turpentine. Assafœtida pills were given, as suggested by Dr. Chepmell in Mr. Pearce Gould's case, and they afforded great relief to flatulent distension and borborygmi, but failed as aperients. The bowels acted naturally on the twenty-third day and continued to do so every alternate day. On the same date (Sept. 23rd) the patient left her bed, after having been absolutely confined to it for just over a year, and returned to her own house from the surgical home exactly a month from the date of operation. Increase in flesh became appreciable about ten days after the operation, but the patient was never weighed, as her previous state would not admit of it.

The present condition of the patient, fifteen months after operation, is eminently satisfactory. She has become quite plump, and is able to take a considerable amount of exercise. Her appetite and digestion are excellent, and except for an occasional attack of migraine she is never sick or in need of medical attendance. There is no tendency to ventral hernia; morphia injections were discontinued a few weeks after the operation, and a mild aperient pill now and then is all that is needed to keep the bowels in good order.

Remarks.—In this instance the abdominal section was considerably longer than was needed for pyloroplasty, which, as the subjects for it must usually be thin, might be done with an incision of three inches and a half. It seemed needful to explore the abdomen extensively, as no disease about the pylorus could be found before making the visceral incision. The case appears to have been of a spasmodic nature, but the pyloric sphincter was certainly sharper and more prominent internally than normal, and its closure on the finger was notably sudden. Probably the same thing occurred when food approached it. The outer row of sutures in the gastro-duodenal wound were not according to Lembert, but were passed through the peritoneum and muscle about a quarter (or rather less) of an inch from the cut edge, and were brought out on the one side and commenced on the other side of the cut just under the edge of the peritoneal coat. This was done so as not to interrupt the continuity of the longitudinal muscular fibres, which are pretty thick and close together at the pylorus; it was hoped thereby to secure the best possible peristalsis at the critical spot. Possibly the spastic condition found in this instance may explain some cases of actual hypertrophic or fibroid stricture—the constant irritability of the muscle leading to hyperplasia as well as hypertrophy, especially if any inflammatory process supervened. In this patient the disease had not lasted long enough to cause more than slight overgrowth of the circular fibres of the pylorus. This is the third pyloroplasty performed in England, so far as I am aware, the first being that of Mr. F. Page and Dr. Limont,[2] done early in 1892, and the second that of Mr. Pearce Gould in December, 1892 and it is satisfactory to note that all three patients have not only survived the operation but have been completely relieved of their previous disability and suffering.

Windsor.

[1] Brit. Med. Jour., May 20th, 1893.

[2] THE LANCET, July 9th, 1892.

A REMARKABLE CASE OF MYCETOMA.

BY SURGEON-MAJOR WM. KEITH HATCH, F.R.C.S. ENG., M.B., C.M. ABERD.;

AND

SURGEON-CAPTAIN F. L. CHILDE, M.B. LOND., M.R.C.S. ENG.

PHYSICIAN TO THE SIR JAMSETJEE JEEJHEEBHOY HOSPITAL, BOMBAY.

THE patient was a pure African about thirty-five years of age, and was admitted into the Sir Jamsetjee Jeejheebhoy Hospital, Bombay, on Jan. 21st, 1894, in a weak and emaciated condition. He was then under the care of Surgeon-Major Hatch. He had spent the early part of his life in England at a home for Asiatics, and went to sea at first as a cabin boy and later served as fireman on several ships; he lived on shore at intervals in England and at foreign ports—viz., America, China, France, India, and Africa. He stated

that he had never gone inland, and rarely stayed more than a week at any port. He had never suffered from any illness before, had no family, and believed that he came originally from Zanzibar. His illness commenced a year previously after a fall. He was working on deck and fell down a companion ladder into the hold about 10ft. or 12ft. According to the patient's statement his left patella was displaced to the inner side, and next morning the left knee became much swollen. After a few days he returned to work, although there was considerable pain on the outer side of the knee; the knee and thigh steadily increased in size during the next six months; at length, while on a voyage from China to England, he could work no longer and asked the captain to leave him at Aden, where he was admitted into hospital. He then noticed for the first time the appearance of small swellings like blisters over the left thigh and knee; these burst and discharged pus; small seed-like bodies were also noticed in the discharge. After remaining at Aden four months he left for Bombay. During this period the swelling of the limb increased and he became unable to walk. He was admitted into the Sir Jamsetjee Jeejheebhoy Hospital, Bombay, under Surgeon-Major Hatch's charge on Jan. 21st, 1894. The patient was a strongly built man in poor condition; his skin was of an ashy colour, as seen in sick negroes. He could speak broken English, but was extremely ignorant; the mucous membrane was very anæmic; the muscles were also much atrophied. He was quite unable to walk owing to pain and the unwieldy size of the left lower extremity; this from the junction of the upper and middle third of the thigh to the middle third of the leg was enormously enlarged, having roughly the appearance of elephantiasis. The skin over this part was darker than that of the body generally, and the limb felt hot; the enlargement appeared almost uniform, but was most marked at the knee. The surface, more especially in front and on the outer side, was covered with soft nummular swellings, rather larger than a shilling and slightly convex. On the summit of some were dried scabs; others had a cicatricial appearance; while others, again, discharged blood and pus from one or more sinuses These swellings could be easily ruptured with a probe, when a small quantity of pus, with seed-like bodies and balls, varying in size from a millet-seed to a pea, could be removed.

The cavities containing these bodies appeared to be quite superficial, the probe only passing for a quarter of an inch; subsequently a sero-mucous discharge continued to drain from the openings and rapidly decomposed. The diseased part was fairly firm, but softest over the muscles of the calf and the inner side of the knee, firm and brawny over the joint and immediately above it. The patella and tuberosities of the tibia could be felt. The whole diseased area was tender and especially painful on the outer side, and pitted on firm pressure; the lower part of the limb was not œdematous. In the left groin there was a soft, slightly movable, and nodular swelling, over which the skin was studded with small bluish-black nodules; there were no openings in these. Similar swellings could be felt in the lower part of the abdomen above Poupart's ligament and along the course of the left external iliac vessels; the largest was about the size of a hen's egg. The supra-trochlear glands and those of the neck were somewhat enlarged. Digestion was deranged, but the organs generally appeared healthy. The patient complained chiefly of severe abdominal pain in the epigastric region, but although the abdominal muscles were extremely lax nothing

could be felt to account for the pain, which was chiefly nocturnal and prevented sleep; on this account he begged earnestly for amputation of the limb, which he supposed to be the cause of the pain, but Surgeon-Major Hatch could not promise any relief by operation. The limb was wrapped in lint soaked in carbolic acid, and opium was given internally, which relieved him a good deal, especially if the bowels were kept open. The patient began to lose flesh rapidly after admission and aged very much; his hair began to turn grey, while the limb diminished in size. He became extremely disappointed that no operative treatment was carried out, and begged for something to be done. Surgeon-Major Hatch determined to ascertain the condition of the abdominal glands, and with the assistance of Surgeon-Captain Quicke and Mr. Masina he opened the abdomen on Feb. 13th by a median incision from an inch below the umbilicus to the pubes. About a pint of serum escaped from the peritoneal cavity, and the diseased glands were then carefully removed from the neighbourhood of the iliac vessels. They were dark in colour, resembling kidneys, and easily separated. The largest was two inches long. Examination of the first specimen showed no fungus, but a quantity of black pigment. After closing the abdomen the patient was removed to the ward, when he became extremely weak. He rallied from this condition, but died on the night of the 15th, the temperature falling to 96° F.

Report of necropsy made by Surgeon-Captain CHILDE *on Feb. 16th, 1894 (twenty-two hours after death).*—Rigor mortis had passed off. The body was that of an African, well built but thin, and the muscles wasted; the skin was dark and the hair woolly. The left foot and ankle were normal; at halfway up the leg the swelling began, increased, was greatest at the knee, and extended to the middle of the thigh, where it stopped; it was a general enlargement, having generally the shape of the limb, present both on the extensor and flexor surfaces, though greatest about the knee and popliteal space; thus it had a slightly fusiform appearance. The swollen part had rather a firm feel, but was softer in parts and pitted somewhat on pressure. It measured 23½ in. round the knee, 22 in. just above the knee, and 18 in. just below it. Numerous nodules were present on the swollen part, chiefly on the extensor surface of the knee, but also on the front of the swollen leg and thigh, and at the inner and back part of the knee. They were as large as a shilling, though sometimes less, and scabbed over, some being flat, others of a raised tubercular shape. On removing the scabs sinuses were seen, from which sanio-purulent matter escaped, containing small flat and round yellow bodies—the yellow variety of mycetoma. There were also some sinuses open without scabs, but none of them admitted a probe more than an inch or so. There was a similar swollen part, also pitting on pressure, in the left inguinal region, with similar sinuses and dried scabs and nodules, and the glands, both inguinal and femoral, were enlarged. The leg was bisected vertically through the femur and tibia. The bones were normal except that there were some osteophytes on the inner condyle of the femur, and the knee-joint, with this exception, was quite healthy; the large arteries, veins, and nerves were traced and found to be normal. The muscles within the limits of the swollen part were completely disorganised and for the most part indistinguishable, so that they could not be traced; they had broken down into a large anfractuous cavity, of which the walls were most irregular and stained quite black, being composed of the remains of broken-down muscular tissue. The cavity contained thin watery fluid of a dark colour, having an oily feel; and floating in it were many dark-black shreds of tissue, of irregular shape, oil-globules, and a large amount of the yellow fungus. The fungus had a slightly reddish tinge on the surface, some of it being in small particles, some collected into masses as large as peas and small marbles. The skin and subcutaneous tissues were thickened by one-third owing to chronic inflammation, and the sinuses were found to lead down to the cavity described above; there was no evidence of inflammation or suppuration about the disorganised muscles, and in fact the only signs of inflammation were found in the thickened cutaneous structures and the sinuses with their sanio-purulent contents. The inguinal and femoral lymphatic glands of the left side were enlarged but not markedly altered in consistency; they varied from the size of a walnut to that of a hazel-nut, and on the surface they were of a dark, reddish-brown tint. On section the same colouring was seen scattered about, so that the section had a mottled appearance, but markedly collected in the cortex and periphery of the gland, thus giving the brown surface-colour mentioned above; in some of the glands the fungus was found in small, rounded, yellowish masses of the size of a millet seed, each mass lying loose in a cavity slightly larger than itself. The glands along the left iliac arteries, as well as some of the mesenteric glands, were enlarged, and presented the same changes as the inguinal, except that the fungus itself was not found in any of them. The operation wound was examined, and found to be quite healthy, and there were no signs of peritonitis either local or general. Of the other organs only the liver and spleen were abnormal. The liver weighed 1305 grammes; it was rather large, and of a light yellow colour; its surface was studded with small nodules. On section it showed a general growth of soft, young, connective tissue—in fact, it was in the condition of early cirrhosis. The bile apparatus was normal, and dark bile was found in the gall-bladder. The spleen weighed 320 grammes; it was also large, the capsule was thick and white, looking like cartridge-paper; on section the trabeculæ were seen to be enlarged and the spleen pulp was firmer and darker than normal, the organ being in the condition of the rather chronic "malarial spleen." The right kidney weighed 205 grammes, the left 190 grammes, both being rather pale and large, but otherwise normal. The right lung weighed 550 grammes, the left 498 grammes; both were normal. The heart weighed 325 grammes; it was rather large, but normal. The pancreas, adrenals, testicles, peritoneum, and brain were normal. All these organs were carefully examined for the mycetoma fungus, but it was not found. The blood was thin, watery, and deficient in quantity, and from this cause all the organs were paler than usual.

Microscopical examination.—The fluid from the cavity formed by the broken-down muscles showed many oil globules, much amorphous granular matter, and many small shreds of tissue studded with coal-black particles. There were also very many small yellow particles of the colour of blood pigment, some round, others of irregular shape; and other, but fewer, particles of a shining and almost translucent, reddish-pink appearance. These latter were more uniformly rounded than those described above and varied greatly in size. The fluid also showed much of the fungus with its characteristic stellate rays; no pus corpuscles were seen. The black shreds of tissue became colourless on being soaked in alcohol and also after treatment with sodium hypobromite, but the yellow and pink particles were unaltered by these reagents. The inguinal glands showed a large deposit of small yellow particles in all respects similar to those found in the fluid described above. These pigment particles were chiefly situated in the cortical portion of the gland so as to form a coloured band at its periphery, but they were also found freely distributed through the medullary portion. In addition many of the glands contained the fungus in small particles both in the cortex and medulla, and the gland tissue around the fungus was much disorganised, broken up, and granular, so that each fungus particle was lying in a small cavity; but no relationship was made out between the fungus and the pigment particles. The glands along the left iliac arteries and some of the mesenteric glands also showed the pigment deposit, but no sections of these glands were found to contain the fungus. When the sections of gland were treated with ferro-cyanide of potassium and acetic acid the coloured particles in them at once gave the Prussian blue reaction; whereas after treatment with ferri-cyanide of potassium and acetic acid the particles only showed a greenish tint after about half an hour. The fungus itself was also examined. In the fresh state each fungus particle was seen to be surrounded by a ring of closely set, fine acicular rays; but after treating the fungus with alcohol or ether many of these rays disappeared, and then some delicate filaments could be seen, some of which were linear and others of a club shape. Similarly in sections of lymphatic gland containing the fungus—all of which were prepared by the paraffin method—many of the fine acicular rays had disappeared, having probably been dissolved by the alcohol used in the process of preparation. (These fine rays were taken to be the fat crystals described by Vandyke Carter and Cunningham.)

Bacteriological examination.—Inoculations of the fungus particles were made in broth on Jan. 26th, and again on glycerin-agar on Feb. 15th, but up to March 9th no growth had occurred in either case. A mouse was inoculated with a particle beneath the skin of one flank. The animal was quite healthy and active up to March 9th. The liver, in sections, showed the

ordinary characters of early atrophic cirrhosis; there was no fungus.

Two other specimens of mycetoma were also examined. One, an amputated foot, was kindly sent by Surgeon-Major Parakh. Sections of a muscle were cut from this specimen, and they showed the muscle to be excavated so that only a shell remained, whilst within the cavity the fungus was found. Many round cells of inflammation were found around the fungus, and the muscle was greatly degenerated. The other specimen, also a foot, was sent by Dr. Nanavati of Ahmedabad. Sections of a subcutaneous fungus nodule were cut from this, and showed characters similar to those described above.

I have to acknowledge the assistance of Dr. N. F. Surveyor of Bombay. The sections were prepared by the paraffin method, fixed with Mayer's albumen, and stained with various reagents.

Remarks by Surgeon-Major HATCH.—I have seen about fifty cases of mycetoma in all stages in the foot, lower part of the leg, and hand. Progress has always been extremely slow, painless, and the bones invariably affected and reduced to a papery condition. Diagnosis has never presented much difficulty, except quite in the early stage when commencing in the big toe or hand. The present case is unique in my experience—the great size of the limb, the numerous projections on the surface, the infiltrated condition of the soft parts (giving a resemblance to elephantiasis), the very rapid progress, and the absence of bone affection being especially remarkable. Secondary deposit in the glands of the groin is not uncommon, but I have never before met with enlargement of the pelvic glands. Unfortunately, the patient being so ignorant, it was impossible to get any clue as to the origin of the disease. The post-mortem notes were made by Surgeon-Captain Childe and Dr. Surveyor, who has made some valuable researches on mycetoma.

THYMOL AS AN ANTHELMINTIC.

BY PROSPERO SONSINO, M.D.,
OF PISA.

THE history of a large number of the substances from time to time proposed as remedies is generally the following. A certain drug is suggested as a remedy for a particular disease; after some hesitancy its virtues are extolled by numerous observers from all parts of the medical world, but as yet only as against the original disease. Then its reputed efficacy is little by little extended to many other ailments, and in a short time it is recommended in a large number of cases and diseases. Afterwards a reaction against its use arises, and its drawbacks are pointed out; and, lastly, after a long time has elapsed, its true *therapeutical* place is settled on sure ground, provided it does not eventually fall into complete disuse and oblivion. It seems that thymol is now passing through this common ordeal. Thymol was used first by Bozzolo in 1880 for ankylostomiasis. After some wavering its efficacy was confirmed by many practitioners, and it is now regarded as the best remedy against ankylostomiasis, so that it has generally superseded liquid extract of male fern, the only other remedy which for some time could compete with it. But the efficacy of thymol in the treatment of ankylostomiasis was not yet well confirmed when it was already being tried in other ailments, and especially as a general anthelmintic; and now, if the assertions of some hasty eulogisers are to be trusted, it is the best remedy against all intestinal worms, tænia included, and also against the hæmatozoon filaria sanguinis hominis. I think it reflects great credit on Surgeon-Lieutenant-Colonel Crombie[1] of Calcutta to have settled that about ten grammes per diem of thymol, given for three successive days, have not availed to cause the disappearance of the embryo filariæ from the blood, contrary to what has been asserted by others—viz., that daily doses of some fraction of a gramme of this same drug, taken for a certain number of days, were sufficient to cure radically filarial disease. But it seems to me that Surgeon-Lieutenant-Colonel Crombie has been too hasty in asserting that thymol, while inefficacious as against filaria sanguinis, is effective against the intestinal worms, tænia included. I hope to obtain permission to record in THE LANCET the result of my experience on this subject.

Whilst I have had numerous brilliant successes from thymol in the treatment of ankylostomiasis, so that I can assert that in this disease it often acts like a charm, I must confess that there are some cases—rare, it is true—in which I really found difficulty in ridding the intestines of ankylostoms even by means of this remedy. I now have a case of this kind under treatment, a case which, after all, is surely not one of simple ankylostomiasis. Although in this case the administration three times daily of doses of four grammes brought away in all thirty-one ankylostoms, nevertheless the stools still contain eggs of this parasite in as great abundance as they did previously to the thymol treatment, and as plentifully as they are found in the stools of patients in which thymol brings away hundreds of ankylostoms. I cannot explain on sure grounds the cause of this non-success, but I argue that it may be due to the circumstance that a certain number of worms are still hidden in the walls of the intestine or under the folds of the valvulæ conniventes in such a manner that the thymol may pass them without displaying its deadly action on them. It may be also simply that, being enveloped in an extraordinary abundance of tenacious mucus, they are shielded from the action of the drug. These rare cases of non-success must not detract from the reputation of thymol as an admirable remedy in the treatment of ankylostoma; but I wish to insist that its efficacy as against ankylostomiasis cannot in any manner warrant the profession to generalise and to proclaim it as a remedy against all other intestinal parasites without adducing positive proofs of such efficacy in the case of each species of worm. Now I am sure that the only worms I have sometimes seen expelled along with ankylostoma after the administration of thymol are ascaris lumbricoides, oxyuris vermicularis, and trichocephalus dispar; but, while expulsion of ankylostoma is the rule with thymol, this drug acts on the other worms only exceptionally, and in the greater number of cases it altogether fails to effect their expulsion. In this way, for the expulsion of ascaris lumbricoides and oxyuris vermicularis I cannot trust to thymol any more than I can to other ordinary remedies in use, such as santonine (or, better, the new drug, santoninissina) in the case of the former, and the enema of quassia amara or vinegar in that of the latter. As for trichocephalus, it is well known that there is great difficulty in obtaining its expulsion by any remedy. Consequently, after my first trials, in which I found in some cases trichocephali in the stools following the administration of thymol, I entertained the hope that the new drug might prove to be an efficacious remedy against this worm. The ordinary seat of trichocephali being the cæcum I suggested that their expulsion might be assured by using thymol as an enema; but as this means that thymol must be given in solution, I fear that it could not be used in such doses as to be efficacious as an anthelmintic without proving hurtful to the host by absorption. Indeed, thymol introduced into the circulation is certainly a poison, even in small doses, and if one ventures to give it in such large doses as four, six, eight, and even ten grammes per diem, it is only because it is administered in powders, and it can be relied upon that if ever absorbed it will only be in the minutest proportion. A symptom of dangerous absorption is afforded when the patient presents vertigo or delirium. These unpleasant symptoms are met with only in rare cases after administration of such doses as four grammes of thymol. From what I have said I think that thymol will not prove to be so sure a remedy against the three nematodes named as it is against ankylostoma.

As for the tænia, I have never tried thymol against tænia solium or tænia medio-canellata, because there exists in pelletierine, when properly used, the best known remedy against the large tapeworms; but I can say that in cases of ankylostomiasis with tænia nana I did not obtain with thymol the expulsion of the latter. This was brought about only after recourse was had to ethereal extract of male fern, together with calomel. I must add that I have not yet read of well ascertained cases of expulsion of large tapeworms by means of thymol, and I would be grateful to Surgeon Lieutenant-Colonel Crombie or to any other practitioner if they would publish such cases with full particulars, if they know of any. This point is of great importance, because I think it a great therapeutical mistake to consider that a substance which is efficacious in the treatment of one particular parasite must also prove successful as a general

[1] THE LANCET, Oct. 13th, 1894.

anthelmintic. Experience teaches the contrary as to every substance which has been found to have any action on some species of worm. So also as to thymol, I can assert that it is generally an efficacious agent in the treatment of ankylostoms, but very uncertain in the case of the other three nematodes named and entirely inefficacious against tænia nana. A single case of expulsion of only an isolated specimen of distomum crassum (recorded lately by Dr. J. H. Walker[2] in Sandakan Hospital, British North Borneo) by small doses of thymol is not sufficient to establish on sure ground the general efficacy of this remedy in treating the large Asiatic fluke.

With regard to the method of administering thymol, I think that the best way to give it is in powder, enclosed in wafers or cachets. I find that tabloids are not of any advantage, because they must be given in numbers too great for conveniently administering doses of several grammes, and that the direct contact of the drug with the mouth may prove to be hurtful, seeing that it is an acid remedy.

PERNICIOUS ANÆMIA.

REPORT OF 126 CASES OF THAT DISEASE TREATED DURING 1893 IN THE REWA DISTRICT OF FIJI.

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PERNICIOUS ANÆMIA appears to be chiefly encountered in tropical climates. Under the name of the "beri-beri of Ceylon" it is very common in that colony, and accounts for 250 deaths per million. In Guiana as chloro-anæmia (the *hati wati* of the natives), or cachexia aqueuse, it is prevalent, and often ends fatally from anasarca and exhaustion, as does also a similar disease in North Borneo known as the "wet beri-beri." In Brazil, Singapore, Senegal, and Mauritius it occurs as one of the fatal sequelæ of malarial fever. The diagnosis was, as Dr. William Hunter pointed out in a paper on this subject, read recently before the Harveian Society of London, commonly arrived at by a process of exclusion, it being held that no anæmia could be termed pernicious unless it could be proved not to belong to any of the other and better-known forms of anæmia. Dr. Hunter and others have recently greatly added to the knowledge of this subject—the diagnosis now being based on a consideration of the changes in the blood, the character of the urine, and associated changes pointing to disturbance of liver function. The cases which I propose in this paper to briefly discuss are confined to Indian immigrants residing and working on sugar plantations in the Rewa district of Fiji. These estates are all situated along the Rewa River, and consist chiefly of alluvial flats of from eighty to 1500 acres, which extend from the river bank back to and in between the hills, of which there are many. The climate is exceedingly humid. The following table gives the meteorological observations as taken at Nausori plantation:—

Month.	Temperature.		Rainfall.
	Max.	Min.	
1893.	Fahr.	Fahr.	Inches.
January	86·70°	71·80°	9·04
February	86·14°	71·17°	9·80
March	85·39°	70·70°	10·82
April	No observations taken.		15·00
May	84·40°	69·30°	4·81
June	82·20°	67·70°	2·21
July	81·25°	65·70°	3·78
August	80·10°	66·30°	5·81
September	83·60°	67·90°	4·34
October	80·80°	67·70°	22·28
November	84·06°	68·10°	5·91
December	84·30°	69·54°	8·55

The rainfall is considerably higher on other estates, the fall for the year at Naitasiri being 165·87 in., while at Viria it was 141·29 in. Altogether 126 cases of pernicious anæmia were treated. Of these, forty-one died, thirty-four were returned to India as chronic invalids, twenty-five are still under treatment, and the remaining twenty-six have returned to work, though a considerable number are still weak and but classed as fit to perform a limited task. The method of inquiry pursued was to keep a tabulated history of each individual case, and especially to investigate such points and symptoms as were noted by Dr. William Hunter in his papers on this subject. To save space, and what would have been in many cases useless repetition, I have not included with this a table of cases, but have given full statistical information in the text. There were ninety-eight males and twenty-eight female patients. Perhaps, however, this preponderance of the male sex is to some extent due to the fact that more male than female immigrants are introduced. In 1892 the numbers were 977 men as compared with 403 women. As regards the previous history and habits of the patients, as many as forty were, I was assured by the overseers and hospital attendants in charge of them, dirt-eaters; and these gentlemen also stated that they were of opinion that a great many of the coolies had similar tastes, which, as a rule, they gratified. The general opinion among planters and their European assistants is that coolies eat dirt so as to make themselves ill and thus be liberated from labour; I fear, however, that the occupations of the overseers and hospital attendants render them somewhat suspicious of all who state that they are sick, and that they may be prone to impute base and even groundless motives to anything that may prevent their men from working. But, without doubt, a few may eat dirt with that object in view, and a great many, I believe, do so because they have a longing for something more than rice, and cannot, on account of their religion, eat meat, and are unable to procure fish, and too poor to indulge in fowls. Clay is the substance commonly eaten, though occasionally smithy coals are partaken of. It is extremely difficult to get any trustworthy account of the previous health of the majority of the cases. Some eighty stated that they had had, at some time or other, fever. According to the hospital books, forty-eight had been previously (in Fiji) admitted for gastric disturbance and thirty for slight pyrexia. In nine cases there was a clear history of syphilis. The symptoms of the disease seem to be invariably insidious in onset. Gastric disturbance with slight diarrhœa is first complained of, and in 110 cases was the first symptom to be noticed; in twenty-one there was also vomiting. In ninety-four slight icterus was remarked. In all anæmia was, of course, most intense, and such symptoms, referable to a general anæmic state, as venous hum about the neck, bruit de diable, hæmic murmurs in the præcordial region, palpitation, vertigo, and occasional tendency to syncope were noted in almost all the cases. Breathlessness is usually most pronounced, and in sixty-seven cases was noted as being to a slight degree present even when the patient was at rest. In only seven cases did there appear to be organic valvular disease, and the mitral valve was the one always affected. Hæmorrhages certainly did not seem to be as general as text-books would lead one to infer. Four cases of metrorrhagia were noted, and though the hospital attendants were charged to examine the stools melæna was but perceived occasionally in some twenty of the cases. Eight showed on ophthalmoscopic examination signs of retinal hæmorrhage. None suffered from either epistaxis, hæmoptysis, hæmatemesis, hæmaturia, or purpuric skin eruptions. Dropsy occurred in fifty-one cases. General anasarca, with ascites and œdema of the bases of the lungs, was a common precursor of death, and was noted in thirty-one of the forty-one fatal cases. Paracentesis abdominalis had frequently to be resorted to in order to relieve distension and pressure on important organs; the fluid in all cases, however, reaccumulated very rapidly. Slight puffiness of the eyelids and ankles was observed in many of the cases. The urine in ninety-six cases was unusually dark in colour, and though in five cases on microscopic examination blood pigment was detected in none were any corpuscles to be recognised. In four cases albumen was present. In none was sugar found, though search for it had always to be made because of the general high specific gravity. Indican was found in twenty-two cases, Jaffe's and Senator's tests being employed. In the tropics the amount of indican appears usually to be increased. Unfortunately it was impossible to examine specimens of the blood in all the cases; a certain number were, however, submitted to microscopic investigation, and the white corpuscles were noted to be very numerous, and often

[2] Brit. Med. Jour., Dec. 5th, 1891. Two cases of beri-beri associated with distomum crassum, &c.

microcytes and poikilocytes were to be seen. In all the severe cases many of the corpuscles were irregularly shaped. In twelve instances the amount of hæmoglobin was estimated by an improvised hæmoglobinometer. It was always below the normal. Four specimens were quantitatively analysed by calculation based on the amount of iron obtained after calcination of a known quantity of blood and exhaustion of ash with hydrochloric acid. The percentages respectively were 10·60, 7·40, 8, and 11·20, which are certainly below the normal as given by Preyer—namely, 13·77 per cent. Occasional diarrhœa was noted in nearly all the cases, and in thirty-nine of the forty-one fatal cases this formed one of the symptoms that with œdema in thirty-one of the cases ushered in death. Under the microscope the ova of the ankylostoma could on many occasions be seen. In seven cases in which male fern had been given specimens of the ankylostoma duodenale came away. They were never numerous, however. Twenty cases showed occasionally signs of decomposed blood in the stools. Intestinal antiseptics, such as salol, combined perhaps with subnitrate of bismuth, gave in most cases the best results. The disease appears to be exceedingly fatal, and, as already mentioned, forty-one patients died in this district from it during the year 1893. It appears to terminate in two ways. In one (the more common) thirty-one of forty-one cases proved fatal. The patient becomes œdematous, developing ascites and œdema of the lungs, though commonly the general nutrition of the body is maintained, death taking place from exhaustion, and preceded by either severe vomiting, diarrhœa, or dyspnœa. In the other there is absolutely no anasarca or œdema, but the patient becomes more and more emaciated and dies from sheer weakness and exhaustion. He commonly has, as in the other form, vomiting, diarrhœa, or dyspnœa. Occasionally, as in twenty-six of my cases, the patient improves, the pallor disappearing as well as the œdema (if that symptom has been present). Whether the cure is permanent I am as yet unable to say; but certainly in some of the cases it appears to be so.

Treatment.—A nitrogenous diet, such as one in which beef-tea is an important item, in addition to being distasteful to a coolie on account of his religion, does also, by causing diarrhœa, by no means form a suitable one. A farinaceous diet, with milk and cocoa, and consisting chiefly of sago or arrowroot, with bread and milk, and roasted taro, is more suitable. Spirits, such as whisky, with extras, such as eggs, form useful additions to the diet and are frequently indicated. At first I treated a large proportion of the cases with liquor ferri dialysatus, ferri et ammoniæ citras, and ferrum redactum; but none of these preparations appeared to agree, as they all seemed to cause gastric troubles and diarrhœa. Arsenic, in the form of the liquor, answered well in such cases (about sixty) as could take it. The patients seemed to find it agree with them much more if they also had five grains of salol three times a day. Eleven cases so treated are now doing very well. In one instance the dose of liquor arsenicalis was increased up to eighteen minims; usually, however, ten minims form as large a dose as can be administered. Diarrhœa is best treated by intestinal antiseptics, such as beta-naphthol and salol. In a good many cases salol combined with subnitrate of bismuth did well. Hæmatoxylon, acids, and opium were given with success in severe cases. Neither digitalis nor belladonna does well for long, though small doses of the former, occasionally given, relieve the dyspnœa. Phosphorus, in doses of $\frac{1}{2}$ gr., was given without much effect. Cod-liver oil and the lacto-phosphates, because of the diarrhœa they cause, were not admissible. Manganese salts, of which so much was predicted and expected, did not appear to be of much use. Thymol, also, could not be often taken because of the digestive disturbance it produced. The treatment which gave most success, and which I now chiefly rely on, is, if the patient is strong enough, to commence with a dose of oil of male fern given fasting, and followed by castor oil; and afterwards to administer regularly salol and arsenic, and gradually to increase the dose of the latter up to twelve or fourteen minims. A certain number of undoubted cases have decidedly improved under this treatment. In cases of ascites the abdomen was usually tapped. In all the fluid rapidly reaccumulated, and the relief afforded by aspiration was but temporary. In one serious case injections of a saline solution (6 per cent. chloride of sodium) were tried, but unfortunately without success.

Necropsies.—In all twenty-six necropsies were performed. The noticeable points were a general pallor of all the organs and fatty changes in a large number of them. In nineteen cases there was excessive general effusion in all the serous cavities, in four there was slight excess of serum, and in three the amount was normal. The heart showed generally most marked fatty changes; in many cases the musculi papillares exhibited the "tabby cat" striation. The liver was invariably large, fatty, and pigmented. Under the microscope these changes, especially the deposit of pigment, were most marked. The spleen was in seven instances swollen and pulpy; in the others it appeared to be both normal in size as well as in appearance. The kidneys in one case showed signs of interstitial nephritis. This was one of the cases of albuminuria; in all the other cases they were pale but normal. The lungs in twenty-three cases were œdematous at the base, but otherwise healthy. One case, in which the supra-renals showed changes, had numerous deposits of tubercle scattered about the lungs. The supra-renals contained in one instance caseous deposits. In all the others they were normal. In two cases the petechial hæmorrhages could be seen in the pleuræ. In many there was an excess of fluid. The stomach was much congested in four cases; in the rest it was normal. The intestines were in four cases very much congested; in two there were signs of ulceration about the mucous membrane of the duodenum. In the rest the coats appeared perfectly healthy. In eighteen cases I noticed specimens of the ankylostoma duodenale about the duodenum, but they were never very numerous, and in eight cases none could be detected. The vessels generally seemed to be healthy. The marrow of the long bones, in two instances, appeared to be excessively red, and under the microscope showed irregularly shaped corpuscular elements. The brain was always pale, but healthy.

One of the cases seems to have been one of anæmia due to Addison's disease, though on account of the patient's colour the pigmentation of the skin, which was slight, was never noticed during life. The remaining 125 belong undoubtedly to a distinct disease, known as pernicious anæmia, though whether such disease is due to minute but numerous hæmorrhages, the result of the presence of the ankylostoma duodenale, or not appears to be a moot point. In seven undoubted cases, all answering entirely to Dr. Kynsey's classical description of the disease, I found no trace of the intestinal parasite, and in the eighteen in which I discovered them they were but present in small numbers; while in only two of these could I detect any actual damage to the duodenal mucous membrane. As Dr. Ozzard remarks, too much stress appears to have been laid on the possibility of the ankylostoma causing the disease by minute hæmorrhages, for if such was the case there should have been more changes in the mucous membrane of the intestine, as well as more parasites present. The alteration in the blood and the presence of pigment in the urine and liver, as Dr. William Hunter has pointed out, make the condition seem to be one of hæmolysis, and its pronounced seat in the liver certainly suggests that the process is initiated by the absorption of ptomaines generated in the intestinal tract.

In conclusion, I wish to express my thanks to the various hospital attendants who have assisted me in looking up records and notes of cases; and at the same time I feel that I cannot conclude without offering my apology for the incompleteness of this communication. I trust to continue this work, and hope by the end of the year to be in a position to make a more complete and definite report.

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Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

MASSAGE AS A CURATIVE AGENT.

BY J. C. FERGUSSON, M.D., L.R.C.P., L.R.C.S. EDIN., &c.

FROM the recent regrettable associations with which massage as a means of cure has been brought so much before the public there is a danger that it may be brought into discredit, and its undoubted advantages lost, at least for a while, even though recommended by medical men in whose standing and judgment patients have the fullest confidence. While on the Continent last winter I had the fullest opportunities of judging of its merits, having studied it practically under Professor Von Mosengeil in Bonn, and also in Vienna. It may, therefore, be premised that I know its value. But to demostrate rather than dogmatise I beg to submit a few cases from my own practice.

CASE 1.—A man sixty-five years of age. He had had frequent attacks of gout, but the last attack was so severe that he kept in bed for three months. He was sent to me by a medical man under whose care he had been on account of swollen joints. Examination showed both shoulder-joints to be swollen, stiff, and painful. He could not put his hands behind his back to button his braces or put on his coat. His wrists and elbows were also painful, and he could not close his hands. His ankles had been much swollen all the time he was ill. The malleoli were concealed by the swelling, the right measured twelve inches and a half in circumference, and the left twelve inches and three-quarters; the first metatarso-phalangeal joints of both feet were inflamed and extremely tender, rendering walking painful and difficult. After twenty-four days of baths and massage the patient went home perfectly well. "No pain anywhere," every joint free and useful as before the attack, and power of walking quite restored. The right ankle had been reduced half an inch and the left five-eighths of an inch in circumference.

CASE 2.—A woman forty-nine years of age. She had ailed from time to time since childhood. When she came under my care her condition was as follows: she suffered from pemphigus, gout, neuralgia, rheumatism, menstrual derangement, retroflexion uteri, &c. She was very stout and weighed 14st. 9lb.; both ankles were weak, there was much swelling, and she could walk a very little way only. Within one month, by a judicious combination of baths and massage, this woman was able to walk "a mile and a half with delight."

CASE 3.—A single woman fifty years of age; the patient was very stout and lame. On Aug. 28th, 1893, she fell over a rope on a stone pier and hurt her left knee very badly. Immediately after the accident she was placed under treatment. Her leg was put in splints and ice was kept to her knee night and day for six weeks. For three months afterwards she went on crutches and never put her foot on the ground. She fell again in April, 1894, and was obliged to use crutches till the end of May. On July 31st the patient came under my care. Both knees were swollen and painful (the right having suffered in trying to save the left), and neither could be flexed very much—the right about forty-five degrees from the straight, the left still less. The synovial membranes were distended with fluid. The interarticular cartilages were eroded, and a crepitating sound was heard when flexing was attempted. She could only hobble about with a stick. On Sept. 15th, after six weeks' treatment, the synovial fluid was completely absorbed and both knees had become quite normal in size and appearance. The right knee could be completely flexed, and the left nearly so. The patient could walk perfectly well, and never used a stick.

Great Malvern

NOTES ON LITHOTOMY.

BY D. BOSWELL REID, M.R.C.S. ENG.,
FORMERLY SENIOR SURGEON TO THE GEELONG HOSPITAL.

I WAS educated in the faith that it was a fatal error to cut through the prostate in lithotomy. This doctrine was founded on what was stated to be a dictum of Scarpa—namely, that by so doing the recto-vesical fascia would be injured, and so infiltration of urine was very likely to occur in the subperitoneal tissue. In 1856 it occurred to me to submit one of my dissections to Professor G. V. Ellis and to remark that Scarpa's fear was groundless, inasmuch as the fascia in question was attached to the side of the prostate superiorly. Professor Ellis remarked that he well knew the truth pointed out, but said that it was not accepted in certain quarters. When in 1860 I took entire charge of the Geelong Hospital my cases of lithotomy were numerous indeed. The operation had never previously been performed there. No hesitation was ever felt in cutting freely through the prostate in withdrawing the knife, or in introducing a probe-pointed knife and as largely incising the right side in cases where the stone was abnormally large. In no case did any evil arise from this cause. The calculi that it came to my lot to extract were generally very large. Patients had suffered for years hundreds of miles from an operating surgeon, and in many cases the health was very much impaired when they eventually reached Geelong. The following two cases might be considered exceptional.

CASE 1.—An elderly man was admitted into hospital at night suffering from retention of urine. The bladder was much distended, and the patient had been brought in a bullock dray a distance of eighty miles. No catheter could be passed, but a large, hard mass was found in the perineum. On making a free mesial incision a large cyst-like cavity was opened, from which a globular calculus was extracted of about the size of a small potato. Urine trickled out of the wound, and, the patient being relieved, a fine catheter was passed into the bladder and fixed there. Dilatation was carried out, the wound closed, and fifteen years afterwards the man was in good health. He remembered as a boy, more than fifty years previously, being taken to the Edinburgh Infirmary to have a stone removed. The incision was made, but no stone was to be found. Could the then small stone have escaped into the perineum with the first gush, been overlooked, and been the cause of the cyst-like formation communicating with the urethra, and thus gradually enlarging for half a century?

CASE 2.—A powerful young man aged nineteen years was treated at the hospital for difficult micturition. A small sound could be passed, and what felt to be a very irregular calculus was found firmly impacted in the prostate. There was a scar over the right tuber ischii, which the patient stated represented the position of an old running sore from which numerous pieces of bone had escaped. He dated his urinary troubles from the healing of that sore. The incision for mesial lithotomy was at once made, and with great care an irregular pronged solid body was removed. On then sounding, a very large calculus was found in the bladder; but, being phosphatic and soft, it was easily crushed and extracted without enlarging the wound. The prostatic obstruction was pronounced to be a piece of necrosed bone which had penetrated the prostatic urethra and become altered by long exposure. The patient was killed by a horse accident ten years after.

Hanway-street, W.

HYPERPYREXIA IN PUERPERAL SEPTICÆMIA.

BY L. W. BURTON, L.R.C.P. LOND., M.R.C.S. ENG.

I WAS called to attend a woman aged thirty years in her fourth confinement at 5 A.M. on Oct. 23rd. On my arrival I found that the child had been born a few minutes and that the placenta was in the vagina; the placenta was expressed without difficulty. The labour was in every way easy and natural, but she complained of after-pains on the following day. She went on very well until the morning of the 26th, when she complained of sickness, with abdominal pain and tenderness. The temperature in the axilla was 103° F., secretion of milk was arrested, and the lochia were scanty and somewhat offensive. I thoroughly explored the cavity of the uterus, but found nothing retained. I washed it out with Condy's fluid in the morning, and in the evening with a 1 in 50 solution of carbolic acid, with iodoform (five grains to the ounce) suspended in it, and ordered quinine and opium every four hours, brandy (half an ounce) every two hours, and a diet of milk, eggs, and beef-tea. There was no diarrhœa, and the bowels were opened by enemata. This treatment was continued for the next two or three days, the temperature ranging between 101° (morning)

and 103° (evening). The temperature on the evening of Oct. 30th was 104°, and as the quinine did not appear to reduce it I ordered fifteen grains of antipyrin. At 11 P.M. she had a rigor lasting twenty minutes, the temperature in the axilla being 108·2°; there was a coffee-ground vomit; the respiration was very hurried and shallow. She had wild delirium, and the pulse was so small and rapid that it could not be counted. She had said she was dying, and refused to take some quinine in milk, saying that nothing could save her. I injected hypodermically one-hundredth of a grain of sulphate of strychnia, and shortly afterwards one-hundredth of a grain of digitalin. The pulse improved, and after two or three hours she regained consciousness; she then slept for an hour and a half. The temperature twenty minutes after the rigor was 107°, and from that time gradually fell until the next morning, at 10.30, when it reached 97·4°, the pulse being 100 The temperature rose again in the following evening to 103·6°. The patient took plenty of milk, beef-tea, eggs, port wine, and brandy. The uterine injections were continued for two or three days, and quinine and opium were given every four hours. For the next two days the temperature in the morning was about 101° and in the evening 102°, becoming normal both morning and evening on Nov. 5th, eleven days after the invasion. From that time she has made an uninterrupted recovery.

Burton-on-Trent.

A CASE OF ASPHYXIA NEONATORUM.

BY N. TARACHAND, M.R.C.S. ENG., L.R.C.P. LOND.

A PRIMIPARA twenty-three years of age was confined on Oct. 29th. The labour, rather tedious, continued for twenty-two hours, with sharp grinding pains. The vertex presented in the right occipito-anterior position. The vaginal orifice and circumference of the fœtal head being out of proportion to each other, part of the vertex with the parietals presented externally, and the fœtal head made no further progress for more than thirty minutes, even the sharpest pains not producing the desired effect. The patient was gradually getting exhausted, every successive pain stretching the rigid perineum and putting the patient in great distress. A straight incision with the knife, about three inches long, extending from the posterior extremity of the vagina to the perineum, widened the passage, and the next pain brought about immediate expulsion of the child without any further interference. The child when born was to all appearances dead. The face was pale, the limbs flaccid, and there was no appreciable cardiac action. The cord was at once ligatured and the child separated from the mother. There appeared to be complete cessation of respiration. The alternate immersion of the child, first into very hot and then into very cold water, half a dozen times proved to be of no avail. Insufflation of the lungs was next resorted to, by means of a catheter guided into the glottis, and air was gently blown into the lungs, with alternate compression of the thorax, with a view to expel the air. This was persevered in for about three-quarters of an hour, but proved fruitless. Silvester's and Schultze's methods of artificial respiration were then adopted, and given a fair trial for more than an hour, and this time the treatment met with some success. The child made one or two feeble and gasping efforts at respiration. Brandy was placed on the tongue and also applied to the chest and regions over the heart; at length the child began to whine, while the stethoscope revealed very feeble cardiac beats. The catheter was again introduced into the glottis, and the lungs were insufflated for another half hour The child was once more alternately immersed in hot and cold water, and it started screaming at the second immersion. It was then wrapped up in a blanket, a few more attempts at artificial respiration having thoroughly established the function. On auscultation the heart was now heard to beat regularly and distinctly. My object in publishing this case is to show once again that life, though apparently extinct in a new-born child, may be present, and restoration be brought about even after three hours' suspension by persistent efforts at resuscitation. It only remains to be added that both mother and child are progressing favourably.

Mansfield Woodhouse, Notts.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

MIDDLESEX HOSPITAL.

FOUR CASES OF TRAUMATIC RUPTURE OF LARGE ARTERIES.

(Under the care of Mr. GEORGE LAWSON.)

THE following four cases are examples of injury to main arteries. The patient in whom the abdominal aorta was ruptured died in thirty-six hours. All the others made good recoveries, and in each the expectant treatment adopted was amply justified. In each case the force producing the injury was very violent, being sufficient in one case to rupture the biceps, in another to fracture the bone, and in the case of ruptured aorta to fracture transverse processes and rupture the anterior common ligament. In two cases the force was applied directly to the injured part—viz., in the case of injury to the femoral artery and the case of ruptured brachial artery and biceps; whilst in the other two the force was applied indirectly. Excluding the case of injury to the abdominal aorta there were a few symptoms common to each case. 1. In all the main channels below the point of injury pulsation was for a time totally absent, showing that the path of direct circulation was almost if not quite excluded. 2. In each case good collateral circulation was rapidly established. 3. In each case the injured limb was much colder than its fellow. It will also be noted that in no case was there any indication for immediate or later operative procedure, nor did any case at any time show any sign or symptom of traumatic aneurysm. It is worthy of remark that in two of the cases—those of injury to the brachial artery—there was rapidly formed a very considerable, tense, painful tumour, whilst in the case of the femoral artery there was a total absence of such swelling. It is certain that in the latter case, as in the case of rupture of the abdominal aorta, the vessel was not torn completely through, but its inner and middle coats only were ruptured, and these curled inwards upon themselves so as to form a valve-like obstruction to the flow of blood. This may have been the total amount of injury in the cases where there was much swelling, and the latter due to the rupture of small vessels about the point of injury; but, on the other hand, the artery in these cases may have been completely ruptured, and, after a short temporary extravasation of blood from it, the inward curling of the inner and middle coats may have prevented further leakage.

CASE 1. *Oblique fracture through the lower epiphysis of the left humerus with injury to the left brachial artery.*—The patient, a boy aged nine years, was admitted into the Middlesex Hospital on Nov. 23rd, 1893, complaining of injury to his left arm. A short time previously, whilst vaulting the horse in a gymnasium, he had slipped, and in endeavouring to save himself had fallen with extended hand and arm on to the mattress. On his admission there was found to be considerable swelling about the left elbow-joint, chiefly on the inner side, and extending from just below the flexure of the joint for some three inches up the upper arm. The swelling was very tense and painful. The left forearm and hand were much colder than the right. Pulsation in the radial and ulnar arteries was very indefinite, at one time appearing totally absent and at another moment apparently faintly perceptible. The swelling two hours after his admission had not markedly increased in size. He was seen at the hospital within half an hour of the accident, and the swelling, as stated, was then very considerable, quite obliterating all outlines of the elbow-joint. Four hours after admission the swelling had increased slightly, and on account of the excessive pain and tenderness the boy was anæsthetised in order to make a more thorough examination than could otherwise be obtained. Under the anæsthetic faint pulsations could be detected in the radial artery, but no fracture or dislocation was discovered. Under these circumstances the limb was wrapped in cotton-wool, placed on a

raised pillow, and fixed there by a bandage. On the 24th pulsation was plainly felt in the radial in the morning, and there was no increase of swelling at the elbow. During the ensuing fortnight the swelling altered very little. It became very hard, and obscured all outlines of the joint. It was tender, and it was deemed advisable, considering that the tumour was probably due to extravasation of blood from a ruptured brachial artery, to keep the arm entirely at rest, although it was plain that there was some serious injury to the bones about the joint. From the time of the accident the temperature had not risen above normal, with the exception of two days, till twelve days afterwards, when it rose to 100° F. There were no local signs to account for this. At the end of a fortnight the swelling began slowly to subside, and the deformity about the elbow became more manifest. There was shortening of the left upper arm to the extent of three-fourths of an inch, measured from the tip of the coracoid process to the top of the olecranon. Measurement from the coracoid to the internal condyle also showed shortening, though to a less degree; whilst there was no difference in the measurement of the two arms when taken from the coracoid to the external condyle. Movements of flexion and extension were very considerably impaired, whilst those of supination and pronation were not interfered with. A diagnosis of oblique fracture into the elbow joint was made, involving the internal condyle, trochlea, and capitellum. Passive movements were commenced four weeks after the accident, and active movements a fortnight later. The splint was removed from the arm and the limb put into a sling three days after the commencement of passive movements. The boy left the hospital seven weeks after the accident. The swelling had then completely disappeared. Flexion by that time could be carried to almost a right angle, whilst extension was nearly perfect.

CASE 2. *Rupture of the left biceps and left brachial artery.*—The patient was a powerfully built man who was knocked down and run over by a hansom cab, the wheels passing over both arms and chest. He was at once taken to the Middlesex Hospital and admitted to Pepys Ward on the evening of Jan. 7th, 1894. On admission the patient complained of severe pain in his left arm. On examination the limb was found to be much bruised, with considerable swelling and ecchymosis in the region of the elbow-joint. About two inches above the joint there was a small lacerated wound, from which venous blood issued slowly. In the neighbourhood of this wound the fingers could be made to sink into a deep transverse groove extending right across the bicipital area, and the biceps muscle was plainly felt to be ruptured. There was no pulse at the wrist from either the radial or ulnar arteries, nor could any pulsation be detected in the brachial artery. The whole limb was very much colder than its fellow. The skin of the forearm and hand and the finger nails were of a dead livid hue. Slow circulation in the finger tips could be detected on pressure. Mr. Lawson was sent for, but he decided to do nothing at the time. The wound was dressed and the arm wrapped in cotton-wool, and a sedative draught was ordered. On the 9th the patient passed a bad night. He complained of much pain. The tongue was coated. The left radial pulse could now be felt feebly at the wrist for the first time since the accident thirty-six hours previously. On the 10th there was a great deal of ecchymosis about the elbow-joint, with slight œdema of the forearm and redness round the wound. The patient passed a bad night. The radial pulse was very feeble. The temperature was 99·8° F. Carbolic fomentations were applied. On the 11th he passed a fairly good night, with much less pain. On the 12th he was better, and the radial pulse was only just perceptible. There was no brachial pulse. On the 13th the arm was very much better, and there was no pain or tenderness. The œdema and ecchymosis had in great measure subsided, though there was still some slight œdema at the back of the elbow-joint. On the 26th no pulse could yet be felt in the brachial artery, and the radial pulse was perceptible, but was very weak and in no way improved. Circulation in the forearm was thoroughly re-established. There was still a good deal of swelling about the elbow-joint. On Feb. 7th all swelling of the elbow-joint had subsided. In spite of the ruptured biceps the patient moved his forearm fairly well. There was no pulse at the brachial artery, and the pulse was still very feeble at the wrist-joint, but the circulation all over the arm was perfect. The patient left for the convalescent home on this day.

CASE 3. *Rupture of abdominal aorta, liver, and left kidney, and fracture of lower ribs on both sides, with fracture of the transverse processes of the upper lumbar vertebræ and rupture of the anterior common ligament.*—The patient, an old man aged sixty years, was admitted into the Middlesex Hospital on May 3rd, 1894, suffering from injuries due to falling from the box of a four-wheeled cab, the horse having bolted. On admission the patient was conscious, but suffering severely from shock and collapse. The skin was very cold and pale. No pulse was perceptible at either wrist. There was considerable bruising at the bottom of the back and just above the right groin. The lower two or three ribs on both sides were fractured. The right lower limb was paralysed and devoid of sensation. The patient complained of much pain at the bottom of the back. The right lower limb was colder than the left, and there was no pulsation in the right femoral artery. A catheter was passed, and two ounces of blood-stained urine were withdrawn. Warm boric solutions were injected into the bladder and returned in full quantity and slightly blood-stained. The ordinary methods of treatment were applied to counteract the extreme collapse. During the whole of the 4th the patient was very restless and delirious. He passed a motion into the bed. The urine was drawn off by catheter and found to be blood-stained, two ounces only being withdrawn. The liver dulness was diminished. On the 5th, about 4.30 A.M., the patient became much worse and died an hour later. At the necropsy (from notes supplied by Dr. Voelcker), nine hours after death, three ounces of blood stained fluid escaped from the abdomen on opening the peritoneal cavity. There was a large amount of ecchymosis around the larger curvature of the stomach, and there were ragged lacerations of the mucous coat on the anterior and posterior walls. The tenth and eleventh ribs of both sides and the twelfth rib on the right side were found to be fractured. The anterior common ligament between the first and second lumbar vertebræ was found to be ruptured. The transverse processes of the first and second lumbar vertebræ on the right side and the first and third on the left side had also been fractured. A small portion the size of a Brazil nut had been entirely torn away from the under surface of the liver, corresponding to the quadrate lobe, and was lying free in the abdominal cavity. The liver was otherwise healthy. The left kidney showed a small laceration on its outer border an inch and a half from the top. There was no blood in the calyces. There was considerable extravasation of blood into the perinephric tissue on both sides, being especially great on the left side. The abdominal aorta showed considerable extravasation of blood around it, and on laying it open it was seen to be ruptured transversely just above the origin of the renal arteries. The laceration extended through the inner and middle coats, which were atheromatous at the seat of rupture. Half an inch lower there was another transverse rupture half an inch long, whilst in another, half an inch lower, the inner coat had been torn for three-quarters of an inch. Nearly an inch lower than this there was a third complete transverse rupture of the aorta, the inner and middle coats for a distance of two inches being rolled inwards and obstructing the lumen of the vessel, whilst outside them was a pale blood-clot. This laceration extended to the origin of the common iliac arteries. Both common iliac arteries and their branches simply showed atheromatous changes.

CASE 4. *Rupture of the inner and middle coats of the right common femoral artery.*—The patient, a youth eighteen years of age, was admitted into the Middlesex Hospital on Sept. 13th, 1894, complaining of injury to the upper part of the right thigh. The patient, who was employed in a printing office, stated that shortly before admission to hospital he was crushed between the wall and the sliding table of a printing machine. The table slid in one direction to within five or six inches of the wall, and in endeavouring to pass between the wall and the table his right thigh became nipped, the machine working at the time. He was able to walk to the hospital supported by two friends. On admission slight bruising was found on the anterior aspect of the upper part of the right thigh, about an inch below the fold of the groin, the line of bruising crossing that of the femoral vessels. There was no swelling, only slight pain and tenderness at the seat of bruising, and no discolouration of skin beyond the bruised area. The movements of the limb were impaired, but not lost. The whole of the right lower limb was distinctly colder than its fellow. No pulsation could be felt in the common or superficial femoral arteries or in the posterior tibial and dorsalis pedis

arteries. The right lower limb was wrapped in cotton-wool and raised on pillows, and hot-water bottles were applied. On the 14th the limb was warm, but no pulsation could be felt in any part of it. There was no swelling or œdema. No alteration in the patient's condition took place during the ensuing twelve days, except that all pain had disappeared two days after the accident, and the signs of bruising slowly vanished. All this time the limb was kept raised and absolutely quiet. It was ascertained that the patient could move his limb freely two days after the accident. On the 26th, thirteen days after the accident, very faint pulsations were detected in the dorsalis pedis artery, but none in the posterior tibial or femoral. Three days later pulsation was distinct in the dorsalis pedis artery, but still absent from the posterior tibial. The cotton-wool casing was now omitted. On Oct. 3rd, nineteen days after the accident, pulsation was felt for the first time in the posterior tibial artery. The condition of the femoral artery was unchanged. The patient left the hospital on the 4th. The movements of the right limb were quite free and normal, and there was no difference in the temperature of the two limbs.

Medical Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Treatment of Respiratory Affections by Means of Large Medicinal Injections through the Larynx—A Year's Experience of the Use of Sulphur in Surgery.

AN ordinary meeting of this society was held on Nov. 27th, the President, Mr. HUTCHINSON, being in the chair.

Mr. WALTER WHITEHEAD communicated a paper by Mr. Colin Campbell (Saddleworth) on the Treatment of Respiratory Affections by Means of Large Medicinal Injections through the Larynx. Attention, he said, was first called to this method of treating certain affections of the respiratory organs in an article by Professor Rosenberg of Vienna.[1] In spite, however, of the subsequent publicity given to the favourable results obtained by Professor Rosenberg and other observers, the method was still comparatively unknown to most practitioners in this country. The method, he claimed, was eminently rational, for it brought the remedial agent into direct contact with the diseased tissues, and this principle was too well recognised in surgery to require any argument. Something of the kind had already been done by the inhalation of vapours &c.; but, he asked, what could a vapour do towards rendering a pulmonary cavity aseptic, and, also, what surgeon would like to undertake the treatment of a spinal abscess by "vapours" if he could wash it out first and then send in his antiseptic solution or fill the cavity with an aseptic absorbent? It was not yet possible to wash out pulmonary cavities, but, unlike abscesses, these cavities were constantly doing their best to empty themselves, and instead of vapours they could now send in the antiseptic itself. It was agreed on all hands that treatment by intra-tracheal injection was practicable, but after a very considerable experience of the method he had come to the conclusion that a good deal of practice was required to carry it out in a satisfactory manner. He had given nearly four thousand injections and he had thought himself an adept after the first dozen, but subsequent experience had shown him that there was always something to be learnt in respect of the details. Most of the published cases dealt with the effects of the treatment in phthisis, laryngeal ulcer, and bronchiectasis, but during the past eighteen months he had tried it in other pulmonary diseases with, on the whole, very satisfactory results. He had only one case of bronchiectasis, and he used a mixture of 12 per cent. guaiacol, 4 per cent. menthol, and 84 per cent. olive oil, of which he injected a drachm or a drachm and a half twice daily. He continued the treatment for a month without any perceptible benefit, and he then came to the conclusion that olive oil was not the best vehicle for the purpose, so he adopted a mixture of guaiacol, menthol, and glycerine. Some glycerines proved very irritating, but distilled glycerine was free from this drawback. He had grouped his cases of phthisis according as there were cavities or only consolidation, with results which appeared in the list of cases appended. He used a syringe holding about one drachm and a half, which he emptied two or three times at each sitting. He used a laryngeal reflector the first time or two, but not after. To begin with, it was necessary to draw the tongue out, but the patient very soon acquired the power to dispense with this formality. If properly done there was no asphyxia, no pain, no cough even. It was very important to avoid touching the fauces, the base of the tongue, the epiglottis, or the rima glottidis with the nozzle of the instrument, and care should be taken not to squirt the mixture down the œsophagus, or vomiting would probably result. He passed the tube carefully through the mouth and fauces, and when the nozzle was seen to be behind and below the top of the epiglottis the tube ought to be rapidly passed through into the larynx and should fit the curve at the base of the tongue lying tightly against it, thus fixing the epiglottis and preventing spasm. This done, he injected the contents of the syringe immediately, either during inspiration or during the pause following expiration. If properly injected the patient was not conscious of the taste of the fluid injected. As his object was to advocate a principle of treatment rather than any drug or combination of drugs, he excused himself from dwelling upon the particular formulæ which he had tried. Almost anything might be injected, water, olive oil, or glycerine being used as a solvent, in quantities of from four to six drachms twice or three times a day, and this without any discomfort to the patient.—The PRESIDENT, in congratulating Mr. Colin Campbell on his paper, which proved that these injections could be made without inconvenience to patients, remarked that a great deal of detail still required to be worked out as to the best drugs to use.—Dr. THEODORE WILLIAMS said his experience of inhalations and sprays was very unfavourable in pulmonary cases, and therefore he had not used the injections. He asked how it could be arranged that the liquids injected should reach the damaged lung. He himself had injected fluids through the chest wall into a pulmonary cavity and into pulmonary tissue, but the result was not satisfactory, as it caused pain and so much coughing that the patients could not be persuaded to continue the treatment. He had seen one or two cases of hæmoptysis improve under the turpentine spray.—Dr. FOWLER said he had had some slight experience of this method. With regard to the quantity of fluid injected, two drachms or more could be introduced without discomfort. It produced cough if the fluid was injected on to the cords, but not if the syringe were passed in through the cords. The only solution he had used was one containing 2 per cent. of guaiacol and 10 per cent. of menthol in olive oil. The dose injected was a drachm once or twice daily. He had only used it in those cases in which an endeavour was made to check expectoration or control fetor. A woman aged thirty-three years was suffering from pulmonary syphilis; there was syphilitic hepatitis, a vomica in the apex, and a gumma in the muscles of the back. There was absence of tubercle bacilli in the expectoration, which amounted to sixteen ounces daily, and was fetid. Under the influence of injections the sputum steadily diminished, and the patient was better and stronger, though the pulmonary physical signs were unchanged. A youth aged nineteen years was admitted to hospital suffering from cough and expectoration; the sputum amounted to eight ounces daily, and contained no tubercle bacilli. The expectoration rapidly diminished in quantity under the injections. A youth aged nineteen years who had pneumonia four years before, presented himself with signs of gangrene of the left lower pulmonary lobe. There were signs of a cavity, with cough and fetid expectoration. Under the injections the fetor disappeared and the quantity of expectoration markedly diminished. The method of treatment was worthy of more extended trial, especially in cases of hæmoptysis. His own experience encouraged him to proceed with the method.—Dr. KENNETH MCLEOD said that when a student in Edinburgh in 1860 he had seen Dr. Hughes Bennett inject a fairly strong solution of nitrate of silver into the larynx for laryngitis with much benefit. The larynx would very soon tolerate instrumentation, and he had successfully dilated a stenosed larynx by means of passing catheters from below upwards through a tracheotomy opening.—Dr. ROUTH remarked that many years ago Magendie performed experiments to show that the quantity of fluid that could be injected into the trachea of animals was very large. In the horse if six litres of fluid were thus injected it would all be absorbed in the course of about three hours. Magendie had used quinine in this manner in two cases with good results.—Dr. MITCHELL BRUCE

[1] Berliner Klinische Wochenschrift, 1875.

thought the method a promising and valuable one. His first case was that of a man aged thirty-four, who for years had suffered from foul expectoration, and was under treatment for seven months. The case was diagnosed as one of diffuse bronchiectasis affecting both lower lobes. One drachm of the solution of guaiacol and methol in olive oil was used twice daily with a marked result. The quantity of the sputum was reduced from fifteen ounces to five ounces per diem, the fetor disappeared, and the physical signs improved, as did the patient's strength. He was now well and following his occupation. In a second case, in a man aged twenty-four years, there was much foul expectoration—possibly due to some obscure burrowing of pus from the abdomen into the right lung. The temperature, which was of the remittent type, fell with the first intra-laryngeal injection and continued down, the expectoration being diminished in quantity. The patient had since returned to the hospital ill, and the treatment this time had not had the same effect.—Mr. COLIN CAMPBELL, in reply, said that after syringing the fluid into the trachea he had caused the patient to lean to one or the other side, according to the lung which he desired to receive the major portion of the medication. If the syringe was passed in boldly through the orifice of the glottis the patient would speedily become tolerant of the method of treatment.

Mr. W. ARBUTHOT LANE then read a paper on a Year's Experience of the Use of Sulphur in Surgery. He stated that, in consequence of his losing a patient by iodoform poisoning last year, he looked about for some material which, like iodoform, would act under the influence of living tissues by the production of powerful germicidal or inhibitory agents, without possessing the poisonous elements which that drug occasionally exhibited. It occurred to him that sulphur, which, when applied to cutaneous surfaces, was able to destroy the organisms which caused such diseases as acne, scabies, eczema, tinea tonsurans, &c. (probably by the formation of sulphurous acid), might also, if placed in the tissues of the living body, result in the development of a germicidal agent in a quantity sufficient to destroy, or at least influence prejudicially, the growth of any organisms with which it might come in contact. He first applied sulphur in September, 1893, and most successfully, to a case of very extensive and destructive disease of the hip-joint, when he found that it produced a powerful caustic action upon the living tissues, associated with the escape of what appeared to be sulphuretted hydrogen. Since that period he had used it continuously for the treatment, not only of cases of tuberculous disease, which up to that time had resisted, too often successfully, every attempt of the surgeon, but also of disease resulting from the presence in the tissues of any form of organism. The paper was illustrated by details of cases of extensive tuberculous disease of the elbow, knee, tarsus, prostate, and spine, of acute septic spreading gangrene of the leg, of traumatic infection of the forearm, of lupus, and of carbuncle. Mr. Lane had arrived at the following conclusions as to the effects of sulphur: 1. Neither sulphur nor the products generated by its decomposition acted prejudicially upon the life or health of the individual into whose body it was introduced. 2. If placed in contact with recently incised healthy tissues, twenty-four hours sufficed to render the parts sterile as far as organisms are concerned. 3. If the recently incised or scraped surface were but poorly supplied with blood, as, for example, the brawny edge of a carbuncle or a spreading gangrene of a limb, sulphur might be left in contact with the tissues advantageously for a considerably longer period. This also applied to a granulating surface. 4. The entry of other organisms into a tuberculous cavity did not influence the action of the drug, since it destroyed all organisms, whether free in the cavity or intruding into the surrounding living tissues forming its wall. 5. The action exerted by sulphur was a painless one. Some observations by Mr. Pakes on the resultant chemical changes were appended, and a paper by Dr. de Ray Pailhade was referred to.—Sir SPENCER WELLS asked why sulphurous acid solution was not used instead of sulphur in powder. In the war of 1870 sulphurous acid solution was almost entirely used at Metz as the antiseptic lotion for wounds, and of 500 cases there were only fifty deaths, a good result considering the difficult circumstances of treatment.—Mr. BARWELL said that he had used for some months sulphurous acid in solution, and had found much benefit in cases of tuberculosis of bone and of the skin, &c.—Mr. LANE, in reply, said that the difference between sulphur and sulphurous acid was much like that between iodoform and iodine. If the drug were used in solution the agent was neutralised at once by the living tissues, whereas the solid material underwent a slow process of oxidation in the tissues, with the result that with sulphur sulphurous acid was first produced, and later some of this was further oxidised into sulphuric acid.

MEDICAL SOCIETY OF LONDON.

Subcortical Cerebral Tumour treated by Operation.

AN ordinary meeting of this society was held on Nov. 26th, the President, Sir WILLIAM DALBY, being in the chair.

Dr. BEEVOR and Mr. BALLANCE brought forward a case of Subcortical Cerebral Tumour treated by Operation. A woman aged thirty-nine years was shown, who had suffered from gradual paralysis of the right ankle, knee, hip, hand, and affection of speech, extending over seven months; she had also headache, vomiting, and double optic neuritis, with mental deterioration. There was some anæsthesia of the limbs and trunk, but not of the face, with deficient localisation. There was no history of tubercle or syphilis, and under anti-syphilitic treatment for over six weeks she got worse. The special type symptoms of tumour of the cortex cerebri, of the internal capsule, and of the centrum ovale were then described, and from the circumstance that the anæsthesia corresponded to the parts most paralysed and was not complete, that localisation was imperfect and muscular sense lost in the paralysed limbs, the tumour was thought to be cortical or subcortical, and as she had never had a fit the latter was considered the more likely. The first operation was done under chloroform in July last by making a large Horsley's horseshoe-shaped flap on the left side, exposing nearly all the parietal bone and one inch of the posterior part of the frontal bone; a parallelogram of bone three and a half inches long by two and a half inches wide was removed; the dura mater bulged into the opening, but was not opened, the flap being replaced. Six days later the operation was finished by opening up the flap and cutting a square flap of the dura mater. The brain bulged especially over the upper part of the ascending parietal convolution, which presented a mottled appearance, and on exploring this part the cortex was broken through and the tumour appeared, and was removed by the knife after passing ligatures through the cortex for a circle two and a quarter inches in diameter, leaving a cavity two inches deep. The tumour was a sarcoma with round and spindle cells. The patient gradually got better and now had recovered complete sensation and power except in the ankle, shoulder, wrist, and thumb, and the headache and optic neuritis had disappeared. The question of cerebral operations was discussed, and it was maintained that very great relief could be given by (1) complete removal of a tumour, (2) partial removal, (3) draining a tumour, and (4) removal of bone and incising the dura mater, and an experiment was described showing that not much relief of pressure was gained by removal of bone only. The time for anti-syphilitic treatment before operating was limited to two months, and the diagnosis of idiopathic epilepsy from fits due to tumours was discussed.

Sir WILLIAM MAC CORMAC congratulated Dr. Beevor and Mr. Ballance on their case. The history so skilfully obtained led up to the diagnosis, which latter was acted upon in a successful manner. It was a matter of gratifying interest to surgeons to find that cerebral neoplasms could be dealt with in that free manner, although a sarcoma in the brain could not be treated as in a limb.

Dr. TAYLOR said that Dr. Beevor and Mr. Ballance had raised some important points as to these tumours. The result was good as to the comfort and relief of the patient, though anything like cure of a tumour only partially removed could scarcely be hoped for. He had in his mind a somewhat similar case of cerebral tumour which had presented symptoms for two years, and after partial removal relief followed as in the present case, except for hemiplegia. Six months after the operation he saw the case as an out-patient, and then the condition of the skull at the seat of operation was like that of the patient shown—viz., the depressed area left by the operation had been filled up by recurrent growth, so that it was flush with the surrounding scalp. In the bad cases of malignant cerebral tumour surgery could step in to make what remained of life bearable or pleasant, and the patient after operation would show a marked change for the better in condition, though not in prospects. As to relief of pressure, all the cases he had seen surgically dealt with to bring this about had been treated both by removal of bone

and by incision of the dura mater. This would relieve the violent headache, the fits would be absent or in abeyance, and the optic neuritis would subside. In cases of necropsy of cerebral tumours not operated on during life there was usually evidence of increased pressure within the dura mater, for with but a small incision in the dura mater over a cerebral hemisphere the brain tissue would at once bulge.

Dr. HALE WHITE remarked that very few cases of subcortical tumour had been recorded, and a sharp line should be drawn between the operations for removal of the tumour and those merely for relief of symptoms. Of 100 consecutive cases of cerebral tumour examined in the post-mortem room, he had found that not more than 10 per cent. came within the province of surgical treatment, owing to the fact that they were either too deep seated, that the lesions were multiple, that they were cerebellar, or that visceral lesions, such as phthisis, &c., contraindicated operation. The first case he had seen was a sub-cortical lesion, an abscess, which was trephined over, but the surgeon at that time did not think it justifiable to explore the brain. The second case was one of growth from the under-surface of the skull, and cure resulted from removal of the growth. In the third case the breast had been excised two or three years before, and there was a secondary growth in the cortex of the brain which produced many fits. The cortex was cut down upon, but it looked healthy; nevertheless, the arm area was excised, and was afterwards found to contain sarcomatous tissue. The patient died ultimately of secondary growths, but no more fits occurred after the operation. An interesting point was that the temperature was uniformly higher in the axilla of the paralysed side. He asked if any good would follow incision of the dura mater in cases of cerebellar tumour.

Dr. MOTT asked if Dr. Beevor and Mr. Ballance could explain the clearing up of the loss of sensation and of movement after the operation. In monkeys, where the upper part only of the motor area for the arm had been removed, the resulting loss of sensation and of movement was only partial. In these cases the parts paralysed were insensitive to tactile sensation, and as the paralysis cleared up, so did the loss of sensation.

Dr. ORMEROD gave the particulars of a case of subcortical tumour which had been partly removed by Mr. Horsley. The symptoms pointed to a tumour in the region of the arm centre; but besides having typical Jacksonian epilepsy pointing to the arm area, the patient had epileptic fits of ordinary type. Mr. Horsley removed the greater part of a large tumour in the cortical and subcortical area of the arm centre, and the fits ceased for a month. Then the region of the wound began to bulge from recurrence of the tumour; one pupil became dilated, and the patient became insane and died. At the necropsy a large tumour was found invading the corpus callosum and spreading deeply to the parts at the base of the brain.

Mr. BALLANCE, in reply, said that the patient's recovery of power in the lower extremity was very remarkable. He did not think that the simple filling up of the hollow beneath the scalp was in itself enough to indicate that the tumour was re-forming. He argued that the patient would not have been as much benefited by incision of the dura mater and drainage of the subarachnoid space. The improvement noticed was due to the fact that the tumour, if still growing, grew into a cavity, and was not exerting pressure on the neighbouring cerebral structure. He knew of a case of cerebellar tumour that had been successfully removed. There was no material difference in the temperature on the two sides of the body after operation. There could be no question that in cerebellar as in cerebral tumours the distressing symptoms—such as headache, vomiting, and extreme vertigo—could all be relieved by trephining and incising the dura mater, though the incision of the dura mater added to the patient's risk, owing to the fact that the subarachnoid space was opened. He could not explain the recovery of tactile sensation.

CLINICAL SOCIETY OF LONDON.

Pulsatile Congenital Cyst simulating Aneurysm.—Idiopathic Dilatation of the Sigmoid Flexure.—Leukæmia treated with Arsenic and Inhalation of Oxygen.—Supernumerary Testis.

AN ordinary meeting of this society was held on Nov. 23rd, Mr. J. W. HULKE, President, being in the chair.

Mr. GOLDING-BIRD detailed a case of an adult with a Cyst in the Superior Carotid Triangle, which exhibited both antero-posterior and also lateral pulsation. It proved on excision to be a flaccid, thin-walled congenital cyst of the neck, which in all but bruit gave the clinical characteristics of an aneurysm. He remarked on the rarity of a congenital cyst exhibiting pulsation, and after describing the particularly flaccid state of the tumour expressed the opinion that lateral as well as forward pulsation of a cyst lying over an artery, but unconnected with it, could only occur when either the flaccidity of the cyst permitted it to mould itself round the artery, or when, which amounted to the same thing, the artery with powerful pulsation was large enough to compress itself deeply into the contour of the cyst, inflammatory cysts—e.g., abscess—though often near arteries, being strongly walled enough to resist the impress of the artery.—The PRESIDENT remarked that a congenital hydrocele of the neck would give rise to much the same symptoms, but the contents of the cyst exhibited demonstrated its true nature. In dermoids the contents were usually grumous or putty-like, and hence did not commonly communicate pulsation. Hueter of Greifswald had described two cases in which congenital cysts of the neck were with much difficulty dissected out, because they passed in between the external and internal carotid arteries towards the pharynx. Both congenital hydroceles and dermoids probably originated in partial persistence of a branchial cleft.—Dr. SANSOM asked if pressure signs were present. He remarked that pulsating empyema in the neck was occasionally mistaken for aneurysm, and this was especially liable to happen if the empyema sac was to any extent wrapped round the aortic arch. The absence of pressure signs would serve in great measure to differentiate it from aneurysm.—Mr. GOULD asked if the carotid artery was freely exposed, so that definite evidence was obtained that the cyst was wrapped round it. Mere flaccidity of the cyst would permit of the lateral displacement of a certain amount of its contained fluid. A tense cyst could not pulsate laterally.—Mr. GOLDING BIRD, in reply, said that the artery was freely exposed for a considerable extent. He held that a wave of expansion could not displace the fluid of a cyst unless the cyst was both flaccid and wrapped round the vessel.

Dr. HERRINGHAM and Mr. BRUCE CLARKE communicated a case of Idiopathic Dilatation of the Sigmoid Flexure. The patient, an old man seventy-eight years of age, had been suffering for eight days from want of action of the bowels. His symptoms, when he was seen at the end of this time, were those of chronic obstruction. The points to be settled were the cause and the site of the obstruction. There was a history of lifelong constipation, and of one attack five years ago similar to the present, which was cured by a strong purgative. For the last six months the general health had been excellent, and the constipation, which had up to that time been the rule, had given place to regular action of the bowels. No stricture could be felt per rectum, nor any tumour in the abdomen. There was considerable distension, and this seemed to involve the transverse colon. In the absence of any evidence of malignant disease the diagnosis made was either fæcal impaction or some non-malignant stricture above the rectum. Attempts were made for two days—the patient's condition seeming to allow of this delay and the cure of the previous attack favouring this course—to relieve the obstruction by purges and enemata. On the third day the patient was considerably worse, and it was necessary to operate. At the operation fæces were found in the peritoneal cavity, and the patient died a few hours later. The disease was found to consist in an enormous dilatation of the sigmoid flexure, which covered almost all the front of the abdomen. The inner surface was extensively ulcerated. In several places it was black and gangrenous, and in more than one had given way, allowing fæcal extravasation into the peritoneal cavity. There were old adhesions to the liver and to the omentum, and recent peritonitis. There was no stricture, nor could any mechanical cause be discovered for the dilatation, which the old adhesions showed to have been of long standing. The intestine above and below the sigmoid was natural. These cases were of extreme rarity. Only eleven similar cases could be found, three of which were in elderly men and were due to sigmoid dilatation, whereas in the other eight the patients were much younger and a much greater length of bowel was affected. In one case a fæcal impaction explained the condition. In none of the others was sufficient cause found. Dr. Angel Money had suggested that in the case

reported by him the distension was due to kinking of the sigmoid flexure. For the younger cases, Dr. Gee's opinion that mere constipation and retention of flatus were the causes of the dilatation seemed to be borne out by Osler's description of an infant long under his treatment.—Mr. CROFT felt unable to predict the cause without further information. The colon above the distension was reduced to a diameter of one inch, and he inquired if there was any obvious local cause for this. He likewise asked if the thickening of the distended walls was hypertrophic, or due to infiltration of organised inflammatory products. If the thickening were due to muscular hypertrophy the case was clearly not a paralytic one. He asked if in the sigmoid flexure or in the upper rectum there was found any evidence that kinking had taken place.—Dr. COUPLAND suggested that habitual constipation was the cause, the sigmoid becoming blocked, and its size and direction altered, with the result that kinking took place.—Mr. BRUCE CLARKE agreed that the kinking was due to chronic constipation, and he thought that many cases of volvulus were produced in the same way.—The PRESIDENT said that these cases were not very infrequent, especially in old people.—Dr. HERRINGHAM, in reply, said that he believed the cause in the younger group of cases was paralysis; in the older cases the condition was not a paralytic one, but kinking due to chronic obstruction; the difficulty was that in some of the cases the bowel was not habitually constipated. The kinking was always difficult to find post mortem, as it was also in hydronephrosis caused by kinking of the ureter; the pressure of a kink had usually to be inferred.

Dr. FREDERICK TAYLOR read a case of Splenic Leukæmia greatly improved by Inhalations of Oxygen and with Arsenic. The patient was aged twenty-five years and was admitted into Guy's Hospital on Nov. 2nd, 1892. He noticed about five months previously that his abdomen was hard all over, and he had been losing strength and colour for about a year. He had continued at work (as a policeman) and had had a good appetite, but he had been short of breath and had had attacks of epistaxis. On admission he presented the characteristic features of a case of splenic leukæmia. The left half of the abdomen was occupied by the spleen, which projected two inches and seven-eighths to the right of the middle line at a point one inch and a quarter above the umbilicus. The blood contained a large excess of leucocytes. They were estimated at 1,000,000 in the cubic millimetre, while the red corpuscles were 1,880,000. The hæmoglobin was 40 per cent. of the normal. The lymphatic glands and the optic discs were normal, and the urine was free from albumen. He was ordered five minims of liquor arsenicalis three times a day and thirty litres of oxygen by inhalation daily. The dose of liquor arsenicalis was increased by two minims every four or five days until it reached forty-five on Nov. 27th. On Nov. 19th the red corpuscles had increased to 3,080 000 per cubic millimetre, and the leucocytes had fallen to 470 000. A decided diminution in the size of the spleen was noted on Nov. 28th. On Dec. 5th the number of red corpuscles was about the same, but the leucocytes were only 10,000 per cubic millimetre. A fortnight later the red corpuscles had increased to 3,630,000, or 72·6 per cent.; the leucocytes had risen again to 20,000, which might be regarded as about two and a half times the normal number per cubic millimetre. He was discharged in January, 1893, when the anterior margin of the spleen was two inches to the left of the umbilicus, and had receded nearly five inches from its first position, while all the other measurements showed marked decrease. Since leaving the hospital he had been in the country, with varying conditions of health. In August, 1894, his spleen was said to be extremely enlarged. Dr. Taylor stated that he had never before in a case of leukæmia seen such rapid improvement, both as regarded the leucocytes and spleen, from any treatment as occurred in this case, though it must be admitted that he was not cured. Still, it was likely that the disease was delayed. He referred to cases treated with oxygen inhalations by Kirnberger, Sticker, and others, and pointed out the small proportion that the dose of oxygen, thirty litres daily, held to the total amount normally breathed. In other cases he should certainly try more oxygen.—Dr. COUPLAND regretted that the patient had been treated by both arsenic and oxygen at the same time. He observed that many cases in which improvement under oxygen had been noted had been treated also by arsenic. There was a fallacy in the arguments advanced for this treatment, since owing to the paucity of red corpuscles oxygen was not carried to the tissues, for the inhalation of oxygen in such cases could not increase the amount of oxyhæmoglobin in the blood. If the corpuscles were laden with carbonic acid gas or carbonic oxide inhalation of oxygen might do good by replacing these. Very recently Schultze had recorded a case in which the proportion of corpuscles was one white to nine red. He gave between thirty and forty litres of oxygen daily for six weeks, and sixty litres daily for a month afterwards. It was reported that the man was improved morally, but not physically, and that the liver and spleen were larger than at the commencement of the treatment.—Mr. W. G. SPENCER asked if an increase of the respiratory movements was noticed under the administration of oxygen; if so, this would indicate an improvement of the venous circulation, which, again, would tend to produce a diminution in the size of the spleen.—Dr. ROSE BRADFORD had seen evidence of the power of arsenic to cause a reduction in the size of the spleen. In one case at University College Hospital 100 minims of arsenic were given daily, and this produced a marked diminution in the size of the spleen. It was impossible to suppose that the amount of oxyhæmoglobin in the blood was increased by the inhalation of oxygen in leukæmia, though it might be in pneumonia or in emphysema; but if oxygen was administered instead of air a certain amount would become dissolved in the plasma, and this might be of benefit to the patient.—Dr. BOYD JOLL mentioned the case of a leukæmic woman who on two or three occasions became poisoned with arsenic, but this did not relieve her symptoms.—Dr. HERRINGHAM wondered whether cases of leukæmia improved if left to themselves. There was a case at the present time in St. Bartholomew's Hospital which was said to have been treated in the Middlesex Hospital eight or nine years ago for leukæmia, but at the present time there was no sign of the disease.—Dr. HALE WHITE referred to the case of a man who was at Guy's Hospital eighteen months ago for leukæmia, where he was given arsenic with benefit. On leaving the hospital he ceased to take arsenic, but had nevertheless continued in good health.—Dr. TAYLOR, in reply, said he did not think that the amount of arsenic administered in his case was enough to produce a decided result on the patient. He admitted that there was a difficulty in accounting for the action of oxygen in these cases. He had made no observations on the respiratory movements.

Mr. ARBUTHNOT LANE showed a boy aged fifteen years, from whom a Small Supernumerary Testicle was removed from the Right Half of the Scrotum. This organ had a separate tunica vaginalis and was normal in appearance, the vas running up in company with that of the normal testis on the same side. Both right and left testicles were absolutely normal, the right one being brought out through the incision and carefully examined at the time of the operation. Manipulation of the supernumerary testis, which was as large as an ordinary marble, produced no testicular sensation. The specimen, with microscopical sections, was shown.—The PRESIDENT observed that in his experience he had not met with a similar instance, nor had he read of it recently. The cases described by the old writers were probably most of them instances of encysted hydrocele of the cord. A close analogy to this specimen was that of double kidney, each with its own ureter, an example of which occurred in a patient under his care some time since at the Middlesex Hospital and was exhibited by Mr. Leopold Hudson at the Pathological Society in 1893.

HARVEIAN SOCIETY OF LONDON.

Disease of the Knee-joint.—Suture of the Urethra after Rupture and External Urethrotomy.

A MEETING of this society was held on Thursday, Nov. 15th, at 8.30 P.M., Mr. GEORGE EASTES, President, being in the chair.

Mr. HOWARD MARSH related some cases of Disease of the Knee-joint, in which diagnosis was extremely difficult. The first case was that of a boy who had a swelling over the internal condyle of the femur discoid in form with an indistinct outline, which to all appearances was believed to be a tuberculous periostitis or node. It was cut down upon and found to be a spindle-celled sarcoma growing from the synovial membrane. It was freely cut away, the joint washed, drained, and put on a splint. The case did well and no recurrence has been noted. The second case was that of a boy aged nine years with a fixed, circumscribed, prominent swelling over the joint, to one side of the patella. It was diagnosed

by several surgeons as a new growth in the subcutaneous tissue, but on operation it turned out to be a chronic abscess in a very unusual position. The third case was that of a woman with a swelling of the joint, clearly an effusion into the joint, with raised temperature and of several months' duration. It was supposed to be tuberculous disease of the synovial membrane, but no improvement took place after several weeks' treatment by counter-irritation, rest, &c. Suddenly it was noticed that spontaneous fracture had occurred above the condyles, and then it became clear that the case was one of endoseal sarcoma, though no expansion of bone or other signs of that disease were present. Amputation was then performed, and the case did well. Mr. Marsh said there were a few of the cases in which an accurate diagnosis was impossible, as one disease might exactly simulate another, and often typical symptoms were absent. He said that diagnosis had often to be modified, and deprecated the system of holding to an original diagnosis blindly. Careful observation should always be made as the case proceeded, and the surgeon should not in any way be biased by his original expressed opinion. He then said that he had lately been treating enlarged bursæ beneath the semi-membranosus by excision with ligature of the neck of the sac, and showed the advantages of this procedure over the old method of injecting irritants, aspirating, &c.—Mr. PEARCE GOULD said that he quite concurred in this new method, and had used it frequently.

Mr. PEARCE GOULD then read a paper upon Suture of the Urethra after Rupture and External Urethrotomy. He related several cases in which, after rupture had occurred through accident, he had cut down upon the urethra and sutured the torn ends with the finest silk, over a large catheter, and then sutured the various layers, compressor urethræ, fasciæ, and skin also. The catheter was kept in only three or four days, and the cases did wonderfully well, no trace of a stricture resulting. He divided cases of stricture which were impassable into (1) those without and (2) those with fistulæ. These he treated by dividing the stricture by Wheelhouse's method, introducing a catheter and suturing layer by layer in the same way as before. He then discussed the relative advantages of external and internal urethrotomy, and showed that, although brilliant successes were recorded after the latter, the former with suture, layer by layer, was the safer, in that the surgeon saw and knew exactly what he was doing.—Mr. HOWARD MARSH related a case of Suture of the Urethra in which the operation was performed by Mr. Bowlby.—Mr. GORDON BRODIE and Mr. PEYTON BEALE made some remarks, in which they fully agreed as to the danger, in many cases, of internal urethrotomy.

MIDLAND MEDICAL SOCIETY.

Exhibition of Cases and Specimens.—Axial Rotation of Ovarian Cysts, causing Twisting of the Pedicle.

THE second ordinary meeting of this society was held on Wednesday, Nov. 21st, Mr. T. F. CHAVASSE, President, being in the chair.

Mr. LUKE FREER showed a case of Contraction of the Fingers, with Anæsthesia, after a Fracture of the Bones of the Forearm. Mr. Freer had divided the tendons of the palmaris longus, flexor carpi radialis, flexor sublimis, and flexor profundus digitorum with good results. The points of interest in the case were the cause of the anæsthesia, the condition of the nerve trunks, and the prognosis of any attempt at nerve suture.—Dr. SHORT showed a case of Large Gouty Concretions in the hands of a woman fifty years of age. The swelling of the first metacarpo-phalangeal joint measured 6½ in. in circumference. The first attack of gout had occurred eight years before, at the end of twelve months' privation.—Dr. SHORT also showed a case of Pneumothorax in the left side of a man forty-nine years of age, occurring suddenly during the first week of October of this year. In this case the diaphragm had never been much depressed, and the spleen could not be felt below the margin of the ribs. The patient said that for eleven years he was short of breath on exertion and had had a cough, so that it seemed probable the left lung might have been partially disabled and the diaphragm fixed by adhesions. A cystometric tracing showed that the affected side was rather less than the sound side. All the other signs of pneumothorax were very well marked. The right lung showed no signs of tuberculous deposit, and in spite of the complete absence of vesicular breath sounds over the left side the patient could walk about fairly well, and only experienced dyspnœa on exertion.—Mr. CHAVASSE showed a Left Kidney removed by Laparotomy from a boy aged seven years. The patient on various occasions had had seven calculi removed from his bladder by median, lateral, and supra-pubic lithotomy. In August last he was admitted to hospital suffering from pain in the left side. Aspiration yielding pus, an incision was made in the ninth intercostal space and a drainage-tube inserted. In a few days the discharge from the wound was shown to be urine. The fistula showing no signs of closing, nephrectomy was performed successfully on Nov. 9th. The organ was dilated, cystic, and showed numerous small interstitial abscesses in the existing cortical substance. It contained no calculus.—Mr. GEORGE HEATON exhibited the Intestines, Umbilicus, and Bladder of an infant with a congenital fæcal fistula. Fæces were first discharged from the umbilicus two days after birth, and from that time till the patient's death when three weeks old all the motions were passed through the abnormal aperture. The specimen showed an opening at the umbilicus, lined by mucous membrane, and leading by a short wide canal into the small intestine some six or eight inches from the ileo-cæcal valve. The small intestine above the aperture was much dilated. The large intestine was very much contracted. The cæcum and vermiform appendix lay deeply in the true pelvis, attached to the sacrum by a long meso-cæcum, and the ascending colon passed upwards to the left side of the spinal column. Mr. HEATON regarded it as a patent Meckel's diverticulum which had probably passed through the umbilicus into a dilated umbilical cord and been ligatured inadvertently by the midwife in attendance.—Dr. THOMAS WILSON showed an Ovarian Cyst in which axial rotation had given rise to twisting of the pedicle and hæmorrhage into the walls and loculi of the cyst. The walls in the lower part near the pedicle were from one to one and a half inches in thickness; elsewhere a line of hæmorrhage was seen inside the fibrous capsule of the cyst.

Dr. THOMAS WILSON read a paper on Axial Rotation of Ovarian Cysts, causing twisting of the pedicle. These cases were divided into three groups: the first comprised cases in which no serious pathological or clinical consequences ensued; the second included cases of acute strangulation of cysts due to twisting of their pedicles; and the third those of chronic strangulation and its results. The symptoms, signs, diagnosis, treatment, and pathology of each group were described. The causation was then discussed and referred to purely mechanical factors, the chief being—(1) the specific gravity of the tumour, (2) the position of attachment of the pedicle at or near the lowest part of the tumour; and (3) the varying position and conditions of the lowest part of the containing cavity, especially depending on posture, and on variations in the hollow viscera which have a more or less fixed base to act from—viz., the bladder, uterus, cæcum, sigmoid flexure, and rectum. The small intestine transmits abdominal pressure to the surface of the tumour, and helps indirectly to fix it in the lowest part of the cavity available at any moment; but movements of this viscus do not appear to be likely to have any direct influence in producing axial rotation.

PATHOLOGICAL SOCIETY OF MANCHESTER.

Exhibition of Specimens.

A MEETING of this society was held on Nov. 14th, Professor SHERIDAN DELÉPINE, President, being in the chair.

Dr. WILLIAMSON showed Sections of a Spinal Cord, in which there was a small syphilitic gumma in the region of the left lateral pyramidal tract, about the mid-dorsal region; it also involved the outer part of the intermediate grey matter and neck of the posterior horn. Around the gumma was a zone of myelitis, and slight changes extended to the opposite side of the cord. The symptoms commenced with severe pain about the mid-dorsal region of the spine. This continued for nine weeks; then both legs became numb; a week later paresis was noticed, which developed into complete paralysis. There was marked anæsthesia on the lower half of the abdomen and on the right leg, but on the left leg—i.e., on the same side as the tumour growth—sensation was only slightly impaired. (During life the case was under the care of Dr. Steell.)

Dr. THOMAS HARRIS showed preparations from several

cases where the primary affection had been some obstructive heart disease, usually initial incompetence, and where there had been marked ascites with but little general anasarca. In each of the cases chronic peritonitis, chiefly manifesting itself as a capsulitis of the liver and spleen, was the lesion found, which would account for the fluid in the abdominal cavity. Dr. Harris referred to the remarks of the late Dr. Hilton Fagge and of Dr. W. Hale White as to Bright's disease being the most common affection associated with universal peri-hepatitis, and said that his own experience and the information derived from an analysis of the cases which had occurred during the preceding ten years in the post-mortem room of the Manchester Royal Infirmary led him to believe that obstructive heart disease causing backward pressure was a more common associate of chronic peritonitis, of which universal peri-hepatitis was usually only a part. The kidneys in such cases were frequently congested, and not uncommonly showed a certain amount of increase of their fibrous tissue; but the appearance of such kidneys was rather that of an affection secondary to the heart than of a primary and independent origin.

Mr. THOMAS JONES described a case of Inherited Syphilis and showed the patient.—Dr. DONALD made some remarks on Tubo-ovarian Abscess and showed several specimens.—Card specimens were shown by Dr. Enrich, Dr. H. S. Wansborough Jones, Dr. Hutton, and Professor Delépine.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

SECTION OF MEDICINE.

Argyria; Therapeutical Traditions; Small-pox.

A MEETING of this section was held on Nov. 16th, Dr. W. G. SMITH, President, being in the chair.

Dr. H. C. TWEEDY showed a case of Argyria.

The PRESIDENT read a short paper on some Therapeutical Traditions. He referred especially to the influence of diet on diseases of the skin, the relationship of chloride of sodium to gout and uric acid, and the action of lithia on gout. He also mentioned the practice of coating pills with keratin, casting doubts on the theory that they required an alkaline fluid for solution.—Dr. THOMPSON thought that cured meat was injurious on account of the nitrate of potash contained in it.—Dr. BEWLEY said that a great many medical men agreed as to the drugs they prescribed, but nothing was more remarkable than the definiteness and diversity of their directions as to diet.—Dr. PARSONS thought that the action of iodide of potassium in lead poisoning might be comparable to that of carbonate of lithia in gout.

Dr. J. W. MOORE read the notes of a case of Small-pox in which he had endeavoured to control the dermatitis by excluding actinic rays of light from the patient and admitting only red light. The patient had two good vaccination marks in the left arm, but had not been revaccinated. The rash was very profuse within the limits of a prodromal erythema and on the feet. Pustulation might be said not to have occurred at all, and there was little or no pitting. Dr. Moore then gave a detailed account of the red light treatment of small-pox, which had been revived in Scandinavia on scientific lines in 1893.—Dr. POTTER mentioned that tincture of iodine had formerly been used to prevent scarring. He had applied it to a patient's face with the very best results.

SECTION OF SURGERY.

Relieving an Obstructed Bowel; Cancer of Upper and Lower Jaw, Tongue, and Floor of Mouth.

A meeting of this section was held on Nov. 9th, Mr. THORNLEY STOKER, President, being in the chair.

The PRESIDENT gave an address entitled "Some Thoughts on the Method of Relieving an Obstructed Bowel."

Sir WILLIAM STOKES gave briefly the details of a series of cases of Cancer of the Upper Jaw, the Lower Jaw, Tongue, and Floor of the Mouth. Some of them had been under his care in the Richmond Surgical Hospital, and the remainder in the Meath. Many points in connexion with the technique of the excision of maxillary tumours invading the bones were discussed, as well as the various proposals that had been made and adopted for the removal of the tongue, either partially or in its entirety. The question of the therapeutic value of these operations was fully discussed, and early operation in such cases strongly advocated.—The PRESIDENT expressed his firm belief in the relationship between cancer of the tongue and syphilis. Most cases of doubtful disease proved to be cancer, and very many undoubted cases of syphilis resulted in cancer. He had a very unfavourable opinion of operations on the tongue, but thought that if touched at all it should be removed entirely.—Mr. BENNETT, commenting on the heredity of malignant disease, observed that the Australian insurance societies had instructed their medical examiners to exclude the question of heredity.—Mr. CROLY said he had not been able to trace heredity as often as might have been expected. He considered that removal of the whole tongue was better than removal of part. He had given up using the écraseur on account of its slowness and also on account of the attendant bleeding.—Mr. WHEELER was not in favour of removing the whole tongue when only a small part was involved. In operating he advised the use of the thermo-cautery scissors. He considered that syphilis was a very potent factor in producing cancer of the tongue.—Mr. THOMSON considered that partial removal of the tongue was not good surgery, and that the whole ought to be removed. The return of cancer of the tongue was so frequent that he believed many cases of apparent non-return to be due to errors in diagnosis.—Mr. MYLES objected to the use of the écraseur because of its tendency to encroach on the easily broken cancerous mass.—Mr. FRANKS thought that when there was a small ulcer on the side of the tongue, well away from the middle line, it would be a mistake to remove the whole tongue. He himself had had two successful cases of partial removal.

Reviews and Notices of Books.

Lectures on Human and Animal Psychology By WILHELM WUNDT. Translated from the Second German Edition by J. E. CREIGHTON and E. B. TITCHENER. pp. 454. London: Swan Sonnenschein and Co. 1894.

THIS work will prove to be a serviceable addition to the rather scanty list of psychological treatises written by competent physiologists The older authors dealt with the phenomena of mind and the laws of human thought with a very superficial knowledge of anatomy and physiology, even as these subjects were known as late as the close of the last century, whilst they almost entirely ignored the evidences of mental activity in animals. Gradually, however, it has been recognised that experiment and observation can be applied to the brain and its functions both in animals and in man, and that much may be learnt from the application of the combined methods of anatomy, histology, experiment, and pathology. The work is divided into thirty chapters, each of which is short and devoted to some special point.

Professor Wundt commences with a brief review of the history of psychology, and shows how the distinction between mind and body was first made by Plato; how Aristotle attempted to harmonise these opposites by regarding mind as the principle which vitalises and informs matter, making life and mentality identical terms; and how Descartes held that mind was exclusively thinking substance, ascribing to it, like Plato, an original existence, apart from the body, whenever it has received in permanent possession all those ideas which transcend the bounds of sensible experience. This mind, in itself unspatial, be connected with the body at one point in the brain where it was affected by processes in the external world, and in its turn exercised influence upon the body. At the outset it is important to understand the definition given by Professor Wundt of ideas and sensations. Speaking generally, ideas are composite and represent those mental states or processes which we refer to something outside ourselves, whether this attribute of externality refers to present, past, or only possible objects—that is to say, to sense perceptions, to the memories of such sense perceptions, or to images of fancy. But sensations are the psychological elements of ideas. Hence we speak of the idea of a house or a table, but of the sensations of blue or warmth, or of a sound of definite pitch. In every sensation we can distinguish two properties, one named the "strength" or "intensity," the other its "quality."

The Temporal Course of Ideas, or the time occupied in thought, is the subject of a very interesting chapter. The phenomena of the personal differences of astronomers are fully explained, and the pendulum experiments devised by Professor Wundt many years ago for the determination of the personal difference are given. In these experiments the observer was required to fix the position of the pendulum in agreement with a sound which it made in the course of its vibration. It was found that with a slow vibration rate there was a time displacement averaging one-eighth of a second. The time of the click was put that much too early, but the rapidity with which the sound impressions succeed each other makes a difference. In a slow series the tendency is to ante-date the passage, in a rapid series to post-date it. An important section is devoted to the "association of ideas," and it is satisfactorily shown that such association is due essentially to the two factors of similarity and contiguity.

The chapter on Instinct presents to the reader in short compass the various and conflicting views that have been and still are entertained by different thinkers. Some writers, as Professor Wundt remarks, regard it as a purely mechanical result of the physical organisation, a compound reflex movement only differing from simple reflex movement in that the responses to particular stimuli are more complicated and extend over a longer period of time—an hypothesis that is difficult to support in view of the evident modifications that take place in the instinctive operations of many of the lower animals in accordance with external, unforeseen, and exceptional conditions. Others look upon the instinctive action of animals as a manifestation of connate ideas; whilst a third view attributes it to voluntary action involving consciousness of end or purpose, but characterised by diminution in the clearness of ideas. Still more recently views have been advanced under the influence of the theory of evolution, one of which considers instinctive actions to be "mechanised rudiments of manifestations of intelligence," a process that has been proceeding for long ages; whilst another hypothesis is that supported by Darwin — namely, that instinct is "inherited habit," determined principally by the influences of the environment and the struggle for existence, but also to a slight extent by intelligence.

The subject of Stereoscopic Vision is explained in an interesting, if not novel, manner. By showing that in the stereoscope pictures give the sensation of depth even when illuminated for the fraction of a second only by the electric light, it is proved that the sensations of movement which were originally necessary to establish the perception of depth may be dispensed with, and the local-sensation qualities alone remain to suggest tridimensional extension. The sensation of lustre, Professor Wundt points out, resembles that of reflection, whilst the phenomena of lustre can readily be made to occur in binocular vision when one eye sees only the object and the other only the reflected image, or by employing very different degrees of brightness of the same colour in the two stereoscopic pictures. His observations on ideational rivalry present nothing novel, and his conclusion that the binocular visual ideal is a mental resultant of the originally separate perceptions of the two eyes is in accordance with general opinion. Whether the double image is really seen simultaneously by the two eyes is open to question. The work has been well and faithfully translated, and gives a fair representation of the present state of physiological psychology.

Hydatid Disease. By the late JOHN DAVIES THOMAS, M.D. Lond., F.R.C.S. Eng., formerly Physician to the Adelaide Hospital, and Joint Lecturer on Medicine in the University of Adelaide. Vol. II. Sydney: L. Bruck. London: Baillière, Tindall, and Cox. 1894.

DR. THOMAS will no doubt be remembered by many as resident medical officer at University College Hospital from 1870 to 1872. Delicate health having induced him to seek change of climate in Australia, he ultimately settled in Adelaide. Here he practised from 1875 to 1890, when illness forced him to relinquish active work, and finally caused his death in January, 1893. In addition to a large practice he did an immense amount of literary and scientific work, partly in connexion with public health and in advocating the superiority of ether to chloroform as an anæsthetic, but principally on the subject of hydatid disease. A paper by Dr. Thomas on the "Experimental Breeding of Tænia Echinococcus in the Dog from the Echinococci of Man" was read before the Royal Society of London, and in 1884 he published a book on "Hydatid Disease, with Special Reference to its Prevalence in Australia." The second portion of this work, dealing with the clinical aspect of the disease, was nearly ready for the printer in 1890, when his health broke down. After his decease it was published in the present volume by his friend, Alfred Austin Lendon, M.D. Lond., Lecturer on Forensic Medicine and on Clinical Medicine in the University of Adelaide.

The greater part of the book is occupied by an elaborate account of the distribution of the parasite throughout the various parts of the body, founded not merely on the Australian experience of the author and others, but on a copious European bibliography as well. In every instance detailed directions are given for distinguishing such cysts from other diseases attended by similar symptoms. In man the liver is of course by far the most common seat of the disease, hydatids of the lung coming next in order of frequency. One hepatic cyst occurring in the author's practice extended from the upper part of the abdomen to the floor of the pelvis, displacing the intestines upwards so much that after operation the abdominal parietes almost touched the posterior wall; ultimately, however, the patient regained his normal figure. The diagnosis between hydatid and other diseases of the lung is described at great length. The nervous centres, bones, muscles, and female breast are invaded sometimes, though comparatively seldom. Treatment by puncture, either with an aspirator or with a simple trocar and cannula, has been strongly recommended by Murchison in England and by Hudson, MacGillivray, Bird, and others in Australia. Nevertheless, Dr. Thomas points out that in a large proportion of cases puncture fails to rescue the patient from death, and many reputed cures are followed by refilling of the sac. It not infrequently happens that alarming symptoms follow the simple operation of puncture with a small trocar, and in a few cases death has even taken place. He quotes from an annotation in THE LANCET of Aug. 28th, 1875, a case in which death occurred in twenty minutes after the tapping of a hepatic hydatid with a capillary trocar. The operator was M. Martineau at the Lariboisière Hospital in Paris, and M. Guyot mentioned in connexion with this case that he knew of seven or eight deaths that had occurred within twenty-four hours after tapping of the liver. In 1888 Dr. Thomas published three cases of death immediately after puncture of a hydatid cyst in the liver, and one case of imminent danger for hours after puncture of a hydatid cyst of the spleen with a very fine needle. Death has also been known to occur very shortly after puncture of pulmonary hydatids. He considers that in some of these cases the cause was suffocation in consequence of the flooding of the bronchial tracts of both lungs by the outflow of fluid from the punctured cyst. The objections to Recamier's treatment by caustic are its high mortality (nearly 34 per cent.), its extreme painfulness, and its prolonged duration. The disadvantages of the *cannule à demeure* are the uncertainty as to the course of the cannula, the liability of the cannula to slip out of the sac and of the cyst contents to become septic, and, finally, the tediousness of the convalescence. Simple incision of an abdominal cyst without special precautions against escape of its contents into the peritoneum is a very fatal operation, twenty-three deaths

having occurred amongst sixty recorded cases. Simon, recognising this, devised the method of double puncture followed by incision into the cyst between the two punctures after suppuration was fully established. This might be done in about fourteen days after the double puncture, the solid constituents of the parasite being removed as completely as possible with forceps. Under this operation recovery is very much sooner effected than by the treatment with caustic, but suppuration of the contents of the cyst, with resulting pyrexia, &c., is an invariable concomitant. In fact, the success of the operation depends on the decomposed contents of the cyst producing adhesive inflammation between the sac and the parietes, and the employment of antiseptic methods causes the adhesions to be so imperfect that stitches are necessary at the time of incision. The published records of Simon's operation, traced by Dr. Thomas, show eleven cases of death and thirteen of recovery; the general result is, therefore, by no means good. In 1871 Lindemann of Hanover initiated what is without doubt the most effective and safe form of radical treatment. He employs the usual procedure of antiseptic laparotomy, arrests all bleeding by aseptic ligature before the peritoneum is reached, passes a loop of stout aseptic silk through the sac wall on each side parallel to the lips of the wound, opens the sac, and stitches its edges to the margins of the parietal wound. Dr. Thomas collected records of sixty-eight cases of liver hydatids treated by this operation, with the result of seven deaths and sixty-one recoveries. He lays great stress on the complete removal of the mother cyst, as even a small shred remaining may be a cause of continued discharge. His antiseptic dressing was a large pad of oakum and wood-wool enclosed in a layer of alembroth or other antiseptic gauze.

For pulmonary hydatids Dr. Thomas strongly recommends a similar operation by a free opening into the sac and the immediate removal of the parasite. An inch and a half or two inches of one rib—or, if required, of two ribs—should be excised and two parallel loops of stout aseptic silk passed through the pleura and sac, including two inches of sac wall. The cyst is now incised, its edges stitched to the lips of the wound, and the contents evacuated. Of eight cases thus operated on by him, seven completely recovered.

In concluding, we may say that this is a highly interesting book. The early death of the gifted author has been a serious loss to medical science in Australia.

LIBRARY TABLE.

Formulaire des Stations d'Hiver et des Stations d'Été. Par le Dr. DE LA HARPE, Privat-docent de Balnéologie à l'Université de Lausanne. [Winter and Summer Health Resorts. By Dr. De La Harpe, Lecturer on Balneology in the University of Lausanne.] Paris: J. B. Baillière et Fils. 1895.—This is a convenient little book of reference to a large number of health resorts, principally in Switzerland, the south of France, and Italy. More space, and perhaps more favour, are allotted to Davos than to any other health resort. The situation and climate of each locality are fully described, and the ailments likely to be benefited are enumerated in much detail. Algiers, Tangier, Cairo, the Canary Islands, and Madeira are included in the list.

Manual of Stretcher Drill and Exercises. By JOHN EWAN BRODIE, M.D., F.F.P.S.Glasg., Surgeon-Lieutenant-Colonel, 3rd Volunteer Battalion, Highland Light Infantry; Examiner to the St. Andrews Ambulance Association. Glasgow: St. Andrews Ambulance Association. 1894.—The above-mentioned association having resolved on issuing a new manual of Stretcher Drill and Exercises for the use of their ambulance classes, Dr. Brodie was requested to undertake the task, and has succeeded in producing a thoroughly practical and useful little book. The first few pages contain hints to learners as to the proper position of the patient on the stretcher according to the nature of the injury, and describe the best method of conveying him. Stretchers should never be carried on the shoulders, the bearers should break step, and the level position should be maintained, with the exception that fractured lower limbs should always be above the general level of the body. Chapter II. is the longest in the book and has full details of the drill for four bearers using the C pattern stretcher, which has poles 7 ft. 6 in. long and a total width of 1 ft. 9 in. The words of command are given in italics on the left side of the pages, and minute explanations immediately opposite them. This chapter has eleven illustrations, and no instructor desiring to employ this drill could misunderstand it. Chapter IV. has five illustrations and shows the improvising of stretchers from broom handles, walking-sticks, oars, &c., covered with blankets, rugs, coats, waistcoats, and so forth. The remainder of the book deals with the conveyance of patients in waggons and by train, the modifications necessary in confined spaces such as mines and sewers, assistance by one, two, or three bearers without stretcher, and finally "hand-seat drill," to which there are seven illustrations. The work excellently fulfils its intention.

Etiology and Histology of Chalazion. In the eleventh volume of the "Bulletins et Mémoires de la Société Française d'Ophthalmologie" M. Parisotti of Rome contributes a valuable paper on the nature of the remarkable affection familiar to ophthalmic surgeons under the name of "chalazion." Though often confused with hordeolum, it is really distinct. It was first studied by Virchow, who classed it with the granulomata. Fuchs and others demonstrated the presence of a capsule, in the interior of which are giant cells, epithelium, and epithelioid elements. In some cases cavities are present. The etiology of the affection has been much disputed. Arlt observed that it may follow a stye, but that it is developed in the tarsus. M. Panas was of opinion that it had no connexion with the Meibomian follicles, though it might, and probably often did, arise in the tissue surrounding them. The majority of authors, however, hold that the point of departure is an inflammation of a Meibomian gland, which may be simply catarrhal, or, as M. Fuchs thinks, a desquamative catarrh of the gland. The presence of giant cells in the swelling is, according to Panas and Remy, purely accidental, whilst de Vincentiis and Fuchs think it is peculiar and special. M. Parisotti remarks that it most frequently occurs in the scrofulous; Baumgarten and his pupils have observed various characters that strongly suggest the existence, either in the past or in the present, of tuberculous neoplasms; and M. Tangl declares that he has been able to recognise the bacillus of tuberculosis, which he believes to be derived from hæmatogenous infection. M. Parisotti has not been able to substantiate M. Tangl's statements, but still notes that, although he has not been able to distinguish any bacilli, the disease especially occurs in those of tuberculous descent, and he is inclined to accept its tuberculous origin.

The Professional Pocket-book for 1895. London: Rudall, Carte, and Co.—This is an excellently contrived system of entering and preserving memoranda. The pages are ruled so as to give two horizontal lines for each separate hour of the day from 8 A.M. to 8 P.M. The corresponding vertical columns show the day of the month and of the week, and in the majority of cases state the fixed appointments publicly arranged for each of them, such as the designation of the Sundays in the ecclesiastical calendar, various saints' days, Bank holidays, and more especially the important musical engagements for the year. It thus combines a daily and hourly engagement diary, with a calendar and many blank pages for miscellaneous memoranda. It is well bound, and of a size convenient for the pocket.

Archives de Neurologie. Paris: Bureaux du *Progrès Médical*. November, 1894.—In this number of the well-known *Archives* its reputation is well sustained. There is an

interesting case of hysteria, described by Seglas and Bonnus; an account of the state of the urine in general paralysis, and an account of experimental psychology in the United States by M. Baudouin. The usual summary of the pathology of nervous diseases is as full and succinct as usual.

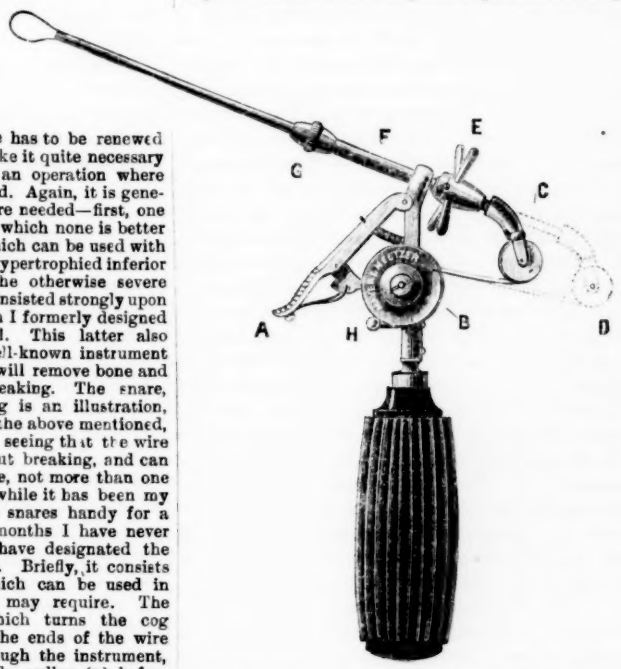
New Inventions.

A NEW CREMATOR.

WE give below a brief description of a cremating furnace made by Messrs. W. F. Mason, Limited, Sanitary Engineers, Manchester. A few years ago the Laboratories Committee of the Conjoint Board of the Royal Colleges of Physicians (London) and Surgeons (England) found some difficulty in disposing of the cultures, refuse &c. from their laboratories. Messrs. Mason, after some correspondence and consultation with the director, designed a cremating furnace with the following features. It forms a structure about 6 ft. wide, 8 ft. long, and 8 ft. high, and is faced with white glazed bricks, which give it a very cleanly appearance. At the base is a coke furnace. This is regularly supplied with a small stream of water, and, by an ingenious arrangement, there is also admitted a given quantity of rarefied air, which, mixing with the gases from the water and coke, raises the temperature of the combustion chamber to an intense white heat. In the centre of the combustion chamber is placed the cremating chamber, access to which is obtained through a door situated immediately above the door of the furnace in the front of the structure. From the cremating chamber runs a flue, which opens into the base of the combustion chamber, so that all gases generated in the cremating chamber must pass through the coke—heated, as already mentioned, to an intense white heat—before they reach the chimney. These gases are also, before entering the combustion furnace, mixed with hot air in the mixing chamber. In this way the whole of the gases from the cremator are thoroughly purified and rendered innocuous before they reach the chimney, and pass thence into the outer air. The cremator has been at work for about three years and has given entire satisfaction. The managers of the Brompton Hospital for Consumption have now adopted the system, and in the near future it is likely that several other hospitals will fit up similar cremators.

UNIVERSAL NASAL SNARE.

PROBABLY there is no longer an operator who does not prefer the snare to forceps for removing nasal neoplasmata, not only because of the comparative bloodlessness, but even more on account of the precision with which the snare is applied and the immunity from severe pain. Moreover, with the snare we remove also the large hypertrophies of the erectile tissue with which the forceps can hardly pretend to cope, as well as hypertrophied portions of the middle turbinated bones and such growths, in part at least, as osseous cysts; but there are difficulties with the snare which may be cited as arguments against its use. In the first place, the frequency with which the wire has to be renewed and the time occupied in the process make it quite necessary to have several instruments handy for an operation where more than one polypus have to be removed. Again, it is generally conceded that two forms of snare are needed—first, one for the rapid extirpation of polypi, than which none is better than Mackenzie's; and, secondly, one which can be used with extreme slowness for the removal of the hypertrophied inferior turbinated body, so as to prevent the otherwise severe hæmorrhage. Bosworth and myself have insisted strongly upon this point, and probably the snare which I formerly designed for the purpose is thoroughly effectual. This latter also possesses all the power of Jarvis's well-known instrument without its disadvantages, and, like it, will remove bone and the toughest of fibromata without breaking. The snare, of which the accompanying engraving is an illustration, possesses all the advantages of each of the above mentioned, with none of the disadvantages; while, seeing that the wire may be used any number of times without breaking, and can be rapidly drawn out with small trouble, not more than one instrument is required. For instance, while it has been my custom to have at least four different snares handy for a polypus operation, for the last three months I have never needed but one instrument. This I have designated the "universal snare" for obvious reasons. Briefly, it consists of two separate actions, either of which can be used in sequence to the other, as occasion may require. The forefinger works the trigger (A), which turns the cog wheel (B), round which are fastened the ends of the wire noose. These, on their course through the instrument, pass through the barrel (C) and over the pulley (D) before attachment to the wheel (B). The thumb is handy to the spokes (E), by turning which to the left the barrel (C) is withdrawn from the outer barrel (F). The collar (G) screws on to the latter, holding the fore part of the barrel, which is detachable, firmly, so that the loop of wire may present either a horizontal or vertical position at will. The unscrewing of this collar enables the wire to be withdrawn with ease as soon as the cog wheel has been loosened by pressure on the spring (H). But the special point which prevents the breaking of the wire is that the noose is not withdrawn within the barrel, but is drawn tight on to a rounded extremity. Thus the wire is never doubled up, and will stand twenty or thirty operations without giving way. A further advantage is that the growth can be twisted and torn out, instead of being merely cut off. But in case the operator prefers the latter method a second barrel is made, also fixed by the collar (G), and through which the wire can be withdrawn in the usual way. The latter is the less painful operation, and is perhaps



preferable with a very nervous patient—at any rate, for the first of a series of operations.

The instrument has been made by Messrs. Mayer and Meltzer, who have shown much ingenuity and patience in carrying out my suggestions.

GREVILLE MACDONALD, M.D. Lond.,
Physician to the Hospital for Diseases of the Throat, Golden-square; Assistant Physician for Diseases of the Throat, King's College Hospital.

THE LANCET.

LONDON: SATURDAY, DECEMBER 1, 1894.

THE fifty-seventh session of the General Medical Council opened on Tuesday last. The President, notwithstanding his recent illness, appeared to be in full enjoyment of his health, and there was no change in the *personnel* of the Council. As usual, the first matter of interest was the opening address of the President. This we publish in another column, and members of the profession will receive from its perusal a trustworthy impression of the complicated and various work which those in charge of their systems of education and registration are called upon to discharge.

Sir RICHARD QUAIN, as is well known, has a firm grasp of the routine work of the Council; but as if this were not sufficient to employ his energies, he took in his opening words a very lively journey into the region of the statistics of the profession, showing by figures the way in which its supply is kept up and the schools from which our ever-increasing numbers come. He brought to light in this manner some facts which those interested in medical education in the three divisions of the kingdom will do well to study. Taking the number of students registered in each of the three divisions of the kingdom during each of four quinquennial periods from 1874 to 1893, he found that in England there was only a slight increase—from 47·75 per cent. in the first quinquennium to 48·82 per cent. in the last; while in Ireland there was a fall from 23·89 per cent. to 14·24 per cent.; and in Scotland a rise from 28·36 per cent. to 36·94 per cent. So much for the registration of students. The figures relating to the registration of practitioners were to the same effect. Taking the registrations of three quinquennial periods for comparison—1879–1893—there were in all 19,566 registrations. Comparing the numbers registered in the first quinquennium with those registered in the last, we find in England an increase of 263; in Ireland a diminution of 160; while in Scotland there has been an increase during the same period of no less than 1258 names. We need not remind our readers that registration in any division does not imply that those registering stay to practise there; but the reason for the increased popularity of the Scottish schools is obvious, and England has only herself to blame for not insisting with more pertinacity on being provided with academic advantages similar to those which North Britain knows so well how to use.

Two or three subjects in the discussions call for notice. Dr. PHILIPSON, who too seldom contributes his views to the Council, ventured to propose, and was seconded by Dr. MCVAIL, "That in every course of professional study and examination bacteriology be contained." Considering that bacteriology is the great achievement of science and of medicine in the nineteenth century, revolutionising our methods and lifting our science by placing it more and more in the regions of exact knowledge, the Council, it seems to us, hardly granted to Dr. PHILIPSON'S motion adequate consideration. The effect of a prompt moving of the previous question—the course pursued—was to stop all further discussion. It may be argued that this subject is already included under the head of "pathology"; but it is notorious that it is not yet taught as it should be, and though the time may not be yet ripe to make bacteriology a compulsory subject, the Council would not have been very wasteful of their time if they had devoted a few minutes to considering the arguments on either side. Moreover, we would remind Dr. PHILIPSON that the student's time is already fully occupied.

A new departure of some importance was taken by the Council on Wednesday. At its last meeting a motion was proposed by Dr. GLOVER, and seconded by Sir PHILIP SMYLY, that legal advice should be taken as to means for stopping the use of titles attached to diplomas that have been withdrawn, several flagrant cases of which are known to the Council to have occurred. The Council agreed to authorise its solicitor to take proceedings against persons so acting, thus vindicating the sanctity of titles implying registration. Sir WALTER FOSTER did very well in inducing the Council to urge that every registrar of births and deaths should be supplied with a copy of the Register, so that he may be without excuse in taking the certificates of persons not authorised to give them. A very useful discussion took place the same afternoon on the inadequate state of the law as regards graduates of universities who retain the title of their degrees even when their names are removed from the Register. The representatives of universities showed a great willingness to forward some method of removing the inability of these institutions to strike off unworthy graduates from their lists—in other words, to degrade them. The whole Council was so agreed on the subject that the mover of the resolution felt justified in withdrawing it.

INTO the year now passing falls the four-hundredth anniversary of the Aberdeen school—an event worthy of solemn commemoration wherever British learning, and more particularly British medicine, are held in honour. Nowhere perhaps in these islands has the thirst for knowledge—knowledge for its own sake primarily, and knowledge in its application to man's evolution secondarily—been so nobly met and satisfied. At a time when, as MACAULAY has pointed out, the standard of life and living was almost as poor as among the Icelanders of the present day, the north-country Scot was pre-eminent in Europe for his command of the then dominant literature, and, to the astonishment of Continental and especially Italian universities, was writing Latin poetry "with more than the delicacy of VIDA." In other departments of culture the same passion for thoroughness, if not perfection, was manifest in the Aberdonian school; mathematics, physics, and mental philosophy were cultivated with an ardour that made its disciples welcome as teachers in better endowed seats of learning; while in the preparation for the healing art in all its branches it kept sending graduates to the front who rose to distinction at almost every foreign Court or in almost every foreign community. Poor and scanty were the means available for the Aberdeen *alumnus* in the sixteenth, seventeenth, and eighteenth centuries. The University was

indeed an "arida nutrix." But she was a "nutrix leonum." Few passages in academic history are more nobly pathetic than the efforts all through these ages to deepen and extend the resources of the student, and particularly the medical student; and the nightly meetings of youths in rotation at their parents' houses, while attesting the poverty that could not hire a room, also bore witness to the indomitable pluck and energy that sought mutual assistance and congenial coöperation under any circumstances rather than not at all. The spirit that thus held out a helping hand to struggling aspiration was not extinguished by removal from its early scene or by naturalisation in foreign lands. On the contrary, it was precisely from these Continental Courts and communities that the Aberdonian, risen to eminence, sent back to his *alma mater* such tokens of gratitude as were most welcome to her. About a hundred years after her foundation Aberdeen received from her pupil, the Earl MARISCHAL, the college that goes by his name; and this, after rivalling and stimulating her elder sister for 267 years, was at length by Act of Parliament amalgamated with the original seat of learning, so as to form the "Universitas Aberdonensis" now known and respected all the world over. This is but a typical example of the forces by which the life of the University has been fostered and developed—forces seen in the foundation of bursaries and scholarships, and the gift of institutions academically still more effective. Prominent among these are the new "extension buildings," notably that block of them containing the Mitchell Graduation Hall and Students' Union, adjuncts to university efficiency inferior to none vouchsafed by a dutiful *alumnus* to a deserving *alma mater*.

Unfortunately, those buildings are still far from completion as a whole, and only the Mitchell block is in a state to admit of its being inaugurated for use within the twelvemonth. An insuperable bar is thus interposed to the celebration of the University's quatercentenary this year, and that for reasons unanswerably set forth at the meeting of the University Court on Nov. 13th. Remembering the magnificent success of the Edinburgh tercentenary a decennium ago, it would not be fitting for the elder sister to fall below the commemorative precedent then established. A prominent feature in the Edinburgh ceremonial was the presence of distinguished delegates from foreign seats of learning; but the securing of their attendance is a matter involving much antecedent arrangement, one element in which is that the buildings set apart for subjects in which these delegates are personally interested shall not be, as a member of the University Court described then, in "a state of chaos." In the circumstances a compromise was proposed for the commemoration of the quatercentenary—namely, that the inauguration of the Mitchell Graduation Hall and Students' Union, which a few months will now suffice to complete, should take place next year, and that this should, so to speak, be a provisional celebration of the University's four-hundredth birthday; while the real and effective ceremonial should be solemnised at a later period, when the completion of the extension buildings would admit of accommodation befitting those foreign delegates whose presence is desirable. This compromise or "intermediate resolution," as he termed it, was proposed by the Principal, Sir WILLIAM GEDDES, who, admitting its unsatisfactory nature, argued that in the circumstances it was the only alternative possible. His reasons carried with them the sense of the meeting, the Marquess of HUNTLY (Lord Rector) pointing out that the provisional inauguration and ceremony of next year would, of itself, be instrumental in "bringing assistance to the University in its present requirements." Opposition to the proposal being disarmed, October, 1895, is fixed as the time when the Mitchell Graduation Hall and Students' Union will be solemnly declared open, and when the opportunity will be embraced of commemorating the fact that 400 years ago, by Papal Bull, the "Studium Generale et Universitas Studii Generalis" at Aberdeen was founded, "with all rights and privileges possessed by the Universities of Bologna and Paris." Even in this provisional form the occasion cannot but be an interesting and an imposing one, reassembling as it must under the wing of the old *alma mater* the representatives of so many liberal callings and brilliant careers. The divine, the jurist, the physician, surgeon, the engineer, the missionary explorer, the colonial governor, and the statesman will each and all be *en évidence* through some of their most distinguished delegates; while literature and art, in both of which Aberdeen has borne her part worthily and well, will, as represented by living votaries, form an attractive feature of the ceremonial. For ourselves, enriched as we know the medical interest to be by the precept and practice of the Aberdeen school—whether by great army surgeons like Sir JAMES MACGRIGOR, or medical philosophers like Dr. NEIL ARNOTT, or medical scholars like Dr. FRANCIS ADAMS, or clinical teachers like Dr. ALEXANDER KILGOUR, or gynæcologists like Dr. MATTHEWS DUNCAN, or pure physicians like Sir ANDREW CLARK,—we have nothing but the most cordial good wishes for the success of the celebration. Her achievements in the past, her position in the present, her promise for the future, make every demonstration of the Aberdeen school an event of the highest academic and even national interest; and she would strangely belie all these titles to admiration and support if on the occasion of her four-hundredth birthday she fell below the expectations formed of her, not only in the British Isles, but wherever learning and practical ability find appreciation and reward.

ATTENTION has recently been called to the fact that the marked general decline that has taken place in the English death-rate during the past twenty years has been much smaller among children under five years of age than among persons above this age. Mr. D. BIDDLE, in a recent contribution to a contemporary entitled "Youngest England," states that "while the general death-rate has been declining, the incidence upon the group under five years of age has been steadily increasing," and, further, that "the comparative power of resistance of this group to disease and death grows less year by year." Such conclusions give, however, an entirely erroneous impression of the true facts of the case. Mr. BIDDLE finds that the rate of mortality of children under five years of age now bears a higher proportion to the rate of mortality at all ages, and gives to this proportion the meaningless name of "coefficient of mortality," but appears to miss the true import of this change of

proportion. There has, indeed, been no increase of child mortality, but instead a fairly continuous decline; and the Registrar-General's figures afford absolutely no evidence of any decrease among children of the power of resistance to disease or death. What are the facts of the case? Simply that the power of resistance to disease and death has in recent years increased much more rapidly among young adults than among young children. The mean annual death-rate of children under five years of age in England and Wales was equal to 68·6 per 1000 in the ten years 1861–70, that is, before the passing of the Public Health Acts of 1872 and 1875. In the succeeding ten years, under the influence of those Acts, the rate fell to 63·5 per 1000; and during the last completed decennium, 1881–90, this rate of child mortality further fell to 56·8 per 1000. Thus, not only has there been a marked decline in the death-rate of these young children in the twenty years 1871–90, but the decline has shown an increasing rate of decline; for whereas the decrease of mean mortality in 1871–80, compared with 1861–70, was 7·4 per cent., the mean rate in 1881–90 was 10·6 per cent. lower than in the preceding ten years. Mr. BIDDLE'S statistical ingenuity in arriving at his pessimistic conclusions by means of his "coefficients" was, therefore, worthy of a better cause. That the death-rate of infants and of young children has not been so powerfully influenced by improved sanitation as the death-rate among persons above that age is, however, an undoubted fact which is fully deserving of attention. We noticed last week the prevalence of an impression that infant mortality—that is, the deaths of infants under one year of age—is increasing. This impression is not founded on fact; but it must be admitted that the marked waste of infant life in this country, notwithstanding its recent decline, is a continuing national disgrace. Unfortunately, it is a social, rather than a sanitary, evil, and one which arises rather from ignorance and neglect than from what are generally known as insanitary conditions. Thus infant life has not enjoyed its full share of the benefit which public health, generally speaking, has derived from the effects of the Public Health Acts. There still remains great need of measures for promoting due care of infant life; but it is well to remember that in the case of infant mortality very little can be expected from the direct effect of legislation. Mothers may be taught and influenced to use the necessary care to rear a larger proportion of their infants; but this can scarcely be enforced by Act of Parliament. It should be borne in mind, moreover, that the survival of a larger proportion of infants to complete the first year of life almost necessarily implies a higher standard of health among the survivors, a reduced death-rate at subsequent ages, and a consequent increase in the mean duration of life. Hence the importance of the reduction of infant and child mortality cannot be overrated.

DR. W. R. GOWERS, F.R.S., lectured on Nov. 22nd before the Phonetic Shorthand Writers' Association on the Artistic Aspect of Shorthand.

ON Thursday next, Dec. 6th, the Humanitarian League are to listen at 185, Tottenham Court-road, at 8 P.M., to Mr. H. Roberts on Public Control of Hospitals.

Annotations.

"Ne quid nimis."

THE USE OF ANTITOXIN IN DIPHTHERIA.

THERE is now an increased prospect of the early trial of the antitoxin method of treatment of diphtheria on a large scale in this country and under conditions which will enable the practice to be pursued with every possible assurance that the trials shall be thoroughly tested. The munificent liberality of the Goldsmiths' Company in placing at the disposal of the Laboratories Committee of the Royal Colleges of Physicians and Surgeons the sum of £1000 for research work in connexion with the treatment and the supply of serum for use amongst the poor, added to the resolution of the Metropolitan Asylums Board to ensure bacteriological investigations of cases of diphtheria admitted into the Board's hospitals during the next six months, affords the best possible guarantee that the work will be properly carried out. We would strongly urge upon the Royal Colleges the desirability of appointing a special committee to watch the progress of the treatment when it is initiated; for it is only by the careful collation and study of facts that the value of the antitoxin can be justly estimated. The opportunity for a properly organised "collective investigation" is one which should be seized, the advantage of having the reports of each institution controlled by a central body, upon which each might be represented, being very great indeed. There is no need to recall the experience of "tuberculin" to point the moral or to warn against too narrow and limited a sphere of observation. If, for example, the London hospitals have this treatment fully and accurately carried out for twelve months the collective statistical results alone will be of the highest value. Although, then, we deprecate premature publication of results, when once the system is in general operation, we consider it opportune that the next meeting of the Clinical Society of London will be given up to the reception and consideration of a report by Drs. Washbourn and Goodall of 100 cases treated by this method, for it is well that the precise conditions of its use should be formulated and discussed, if only to prevent too sanguine and heedless anticipations. An analysis of a small series of cases may be of value in this respect, although less useful for framing a general inference as to results. Lastly, together with the letters from the Goldsmiths' Company and the Secretary to the Laboratories Committee, the *Times* on Monday last contained a letter from Sir Joseph Lister, carrying the assurance that the British Institute of Preventive Medicine will soon be in a position to meet the entire demand in Great Britain, and that the antitoxin will be sold at cost price; and there was also a letter from Professor McFadyean pointing out that the Royal Veterinary College will also soon be able to furnish supplies.

THE METROPOLITAN HOSPITAL SUNDAY FUND.

UNDER the presidency of the Right Hon. the Lord Mayor, Sir Joseph Renals, the Council of the Hospital Sunday Fund met on Monday last to receive the report for 1894 and to recommend the date on which Hospital Sunday should be held next year. Among those present were Earl Stanhope, Sir J. Savory, M.P., Sir G. B. Bruce, Captain A. Palliser, Mr. Martin, M.P., Canon Ingram, the Rev. Dr. Kennedy, Dr. Adler (Chief Rabbi), Mr. F. C. Carr-Gomm, Mr. A. L. Cohen, Dr. Glover, and Mr. Wakley. The report, which was approved, will be presented at the annual general meeting to be held on Monday, Dec. 17th. The total sum collected during the past year has amounted

to £43,679 11*s.* 8*d.* The Bishop of London having suggested by letter to the Council that either June 16th or 23rd would be a suitable date on which to hold the next Hospital Sunday collection, it was decided to propose the latter date at the next annual meeting of the constituents of the Fund. The report of the Distribution Committee, which has already been published in THE LANCET, contains an account of the resolutions passed at the meeting of the Council specially summoned on Monday, July 30th, to receive it. Among these resolutions we shall be pardoned if we mention with every satisfaction the following: "That the thanks of the Council be and are hereby given to the editors of newspapers who have pleaded the needs of hospitals and advocated the cause of this Fund, with a view to increasing this year's collection, and specially to the editors of THE LANCET, who have for several years past sent to clergymen and ministers in London copies of their special Hospital Sunday Supplements." The Rev. C. H. Grundy, vicar of St. Peter's, Brockley, having been elected to the Council in the place of Canon Rowsell, a vote of thanks to the Lord Mayor terminated the proceedings.

DEATH UNDER CHLOROFORM IN A DENTAL SURGERY.

THE serious number of deaths under chloroform when given for the most trivial operations, such as the extraction of teeth, cannot but give rise to grave comment. Why, it seems natural to ask, is recourse had to an anæsthetic of such potency as chloroform when nitrous oxide gas, or that agent associated with ether, is ready to hand? A very sad fatality illustrative of our remarks occurred quite recently in the house of a dentist in Liverpool. A woman aged thirty-seven years, who required several old stumps of teeth to be extracted, visited a dentist for that purpose. An appointment was made with a Liverpool medical man to attend to administer an anæsthetic. The gentleman in question possesses a wide experience of chloroform, ether, and nitrous oxide gas, gained while he was anæsthetist to a hospital and afterwards in a busy surgical practice, and he decided to employ chloroform. The patient appeared to be in excellent health, had been confined fifteen months previously, and had recently lost a child. She had taken chloroform with impunity on other occasions, and possessed no dread of that anæsthetic. The chloroform employed was from reliable makers, and was used with no deleterious consequences to other patients both before and after the fatal case. The chloroformist gives the following account of the case. The patient had no tight clothing on and had fasted for four hours. She was placed in a dental chair inclined at an angle of 30° with the horizon, and took the chloroform from a fold of lint for about six minutes. She took it quite well, breathed normally, and kept a good pulse; her countenance also presented a good colour. It was remarked that "she struggled more than women usually do." This struggling, however, soon passed off, and she breathed deeply, but had a good colour. The pupils were contracted and the conjunctivæ sensitive. Before the dentist had touched the patient, although the chloroformist had taken away the chloroform from her face and pronounced her ready for operation, she suddenly became ashy pale, but respiration continued. The patient was instantly inverted over the arm of the chair, and her chest and face slapped with a wet towel. The heart sounds were wholly inaudible, and the flagellation, although severe, produced no cutaneous hyperæmia. She, however, breathed several minutes, "long enough for further assistance to be sought for and obtained from the top floor of the house." The breathing gradually died away, and, although artificial respiration was practised for two hours, never returned. The usual drugs employed in such cases were had recourse to, oxygen was forced into the lungs and venesection practised. The necropsy revealed slight renal disease; no organic affection of the heart was anatomically discernible. The heart was almost empty, the right side containing as little as the left. The facts as stated point to a terribly sudden syncope; whether this arose from a larger dose being taken during the stage of struggling, followed as it was by deep breathing, it is not easy to decide. Such effects can and do occur. The chloroformist states that no sign of any circulation appeared after the face became pale, and invertion brought no accession of colour and no return of heart beat. The post-mortem appearances also point to the absence of any suffocative phenomena, and suggest heart failure; but from whatever cause the patient died we cannot but feel that it is to be regretted that chloroform was the selected anæsthetic. From whatever reason it arises, it is a fact too often demonstrated that death is peculiarly liable to occur under chloroform as employed in dentistry. A factor in this case may have been the confinement fifteen months previously, since it has been pointed out by Dr. Angel Money and others that functional—possibly cardio-neurasthenic in origin—disorders of the heart occur for some time after a pregnancy. A further point to be noted is that the fact that a person has successfully taken chloroform once does not in any way give him a better chance of avoiding fatality on subsequent occasions. We wish to avoid dogmatism in the matter, but we venture to think that this case, sad and tragic as it is, offers much occasion for thought and many lessons to be learnt.

THE DEVELOPMENT OF THE TEETH.

MR. F. J. BENNETT, in a paper read before the Southern Branch of the British Dental Association, entitled "A Fragment on Dentition," suggests that the commonly accepted views with regard to the development of the teeth require modification. Mr. C. S. Tomes, in his "Manual on Dental Anatomy," says that the enamel germs of the milk teeth are formed from an inflection of the epithelium, while the twenty succeeding permanent teeth are derived from a budding out from the necks of the enamel organs of the corresponding deciduous teeth. The first permanent molar is, however, developed from the same primary epithelium whence the temporary enamel germs originated; whilst the second permanent molar originates from the neck of the enamel organ of the first molar, and the wisdom tooth similarly from the neck of that of the second permanent molar. But Professor Osborn, as quoted by Mr. Bennett, denies that the first tooth is the mother of the second, for the teeth of the lower as well as the upper series spring from the common epithelial fold which dips down from the surface and extends the whole length of the jaw; at intervals it buds off the dental caps of the first series; after these are separated off, the dental fold sinks and buds off the dental caps of the second series, always below and inside the first; thus the fold is the mother, and the caps are sisters, twins, or triplets, according to the number of series. Both Leche and Röse have detected evidence that the dental fold sometimes buds off parts of a third series, thus explaining the occasional reversion of supernumerary teeth on the inner side of the second series. The milk teeth and the true molars are descended from the first series, while the second series is represented by the permanent incisors, canines, and premolars, and rudiments of dental caps beneath the true molars. Mr. Bennett remarks that curious nodules of enamel are often found situated beneath the necks of the molar teeth, at the point of junction of the roots. These enamel nodules vary from a mere dot to a well-formed denticle, possessing a body of regularly disposed dentinal tubes surrounding a pulp cavity; moreover, from the terminal margin of the enamel in the molar crown a

thin string of enamel is continued down to the nodule. In lower molars usually the *string* only is present. They appear to be found only in two situations, either in the region of the true molars or attached to permanent incisors or canines. Now both these situations, as Professor Osborn points out, are the regions of the missing teeth in man—the third lateral and the suppressed second series of molars. Mr. Eve, in a paper read before the Odontological Society, describes under the term "multilocular cystic epithelial tumours of the jaws" certain growths composed of structures identical in appearance with the stellate reticulum of the enamel organ of developing teeth, and suggests that they originate from "epithelial ingrowths around the dental alveoli, possibly ingrowths the sole representatives of teeth long since suppressed in the process of evolution of our species." Mr. Bland Sutton concurs in this view. M. Malassez, in examining such growths, observed "spherical, oval, and cylindrical masses of epithelium within the peridental membrane, chiefly distributed below the neck and upper part of the root," and believes these masses to proceed from epithelial formations accompanying the process of dentition, probably the external layer of the enamel organ. From these and other evidences Mr. Bennett concludes that the enamel nodule, epithelial cysts, and tumours may be taken as various grades and manifestations of a developmental process at work in one and the same region.

THE HEALTH OF BRASSWORKERS.

THE Home Secretary has power to do much to lessen the risks which notoriously attend certain forms of industry. A long and increasing list of trades and trade processes have been already scheduled as "dangerous" under the 8th section of the Factory Act of 1891, the effect of this being that special rules can be framed and enforced for the protection of the persons employed. Mr. Asquith's attention has been directed of late to the frequent occurrence of symptoms of poisoning among workers in brass, and he has now called to his assistance a small expert committee who are to consider the effect of these processes upon the health of the operatives, and advise as to the nature and scope of the precautionary measures which ought to be required by the special regulations, if made. These small Home Office committees, including, as they usually do, one or more experts not connected with the Department, have become quite a prominent feature of the present administration at Whitehall, and have accomplished a great deal of valuable work. The newly appointed committee consists of five members, of whom Dr. R. M. Simon of Birmingham is one. They will sit principally at Birmingham, but will visit other centres in which the brass trade is carried on.

THE PAY SYSTEM AND THE GREAT NORTHERN CENTRAL HOSPITAL.

As we anticipated, the letter of the honorary medical staff of the Great Northern Central Hospital in defence of their accepting the *rôle* of gratuitous attendants on pay patients has not satisfied the objectors, who are counted by hundreds and who have come to a unanimous resolution (in a meeting reported elsewhere in our columns) that the answer is "extremely unsatisfactory." It will be seen that a large part of those present were prepared to go much further, and to refuse any further professional dealings with the members of the staff. For the moment this extreme course has been deferred, and we venture to hope that it will be indefinitely deferred. Such a resolution would be misunderstood by the public and by the supporters of the hospital, through whom, in a great measure, this battle should be fought. But it is clear from this and many other indications that there is in the profession a rising feeling against the competition of hospitals, which may be kept within bounds if the friends and staffs of hospitals will be reasonable, but which, if not seriously regarded, may cause an unseemly storm, in which hospitals will suffer more than the profession. We report such meetings in the true interest of hospitals, believing, as we do, that one reason for the low state of their funds is the fear that they are abused and that they are not sufficiently kept for the benefit of those who actually need them. The medical staffs should show a bold and strong front in resistance to this evil. Instead of this there are many indications that they become parties to it. The enormous development of the out-patient department, the admission of in-patients in comfortable circumstances who can afford to pay fees for treatment at home, and the creation of wards specially for pay patients to be attended gratuitously by the honorary staff, are faults which the most ardent friends of hospitals cannot excuse. The general practitioners of the north of London are not more unreasonable than other men, and their patience is strained to the uttermost. There is still time to restore the wards to the use of the genuinely poor, and to retain the goodwill of the profession, who owe too much to hospitals, when properly conducted, to be unfriendly to them.

SHORTHAND IN MEDICINE.

THERE has been formed a Society of Medical Phonographers, having in view the following objects:—1. *To promote the use of shorthand in medicine.* With this object the society will continue the issue of the Phonographic Record of Clinical Teaching. There will also be produced a list of phonographic outlines of medical terms, examples of the use of shorthand in medicine, and other useful publications, including a leaflet setting forth the time needed to learn phonography and its advantages to students and practitioners of medicine. 2. *To form a bond of union among medical men who use phonetic shorthand.* A list of the members of the society, with their addresses, will be published. This list will enable advantage to be taken of the great ease with which correspondence can be conducted in phonography. The society is managed by a committee consisting of Dr. Gowers of London, Dr. Gray of Oxford (hon. treasurer), Dr. Martin of Sheffield, Dr. James Taylor of London, and Dr. Neil, Warneford Asylum, Oxford (hon. secretary). The hon. secretary will supply information regarding the society and copies of the leaflet above alluded to.

PAUPERISM.

A RETURN of the Local Government Board, just issued, shows that the pauperism of the country has recently indicated a slight tendency to increase. During the three months ending September last the average number of paupers (exclusive of vagrants and of lunatics in asylums) relieved on the last day of each week was 680,956, of whom 184,733 received in-door relief and 406,223 out-door relief. The proportion of the population in receipt of relief was equal to 22·7 per 1000, being a slight further increase upon the rates recorded in the corresponding periods of the preceding two years 1892–93, which were respectively 21·8 and 22·6 per 1000. For many years prior to 1893 the proportion of pauperism had been steadily declining; for, while in 1850 nearly 57 per 1000 of the population were in receipt of pauper relief, the proportion had fallen almost continuously to 22·7 per 1000 in 1892, a fall of no less than 60 per cent. In 1893, however, the rate had increased, and was equal to 23·2 per 1000, and during the first nine months of the current year this increase has been maintained. Notwithstanding this recent comparatively slight increase, the number of paupers in receipt of relief has shown a vast decline during the past forty years; had the proportion to the population

been the same last year as in 1850, there would have been 1,686,000 persons in receipt of relief, whereas the number actually recorded was 630,956. During the ten years 1851–60 the mean proportion of paupers was 46·4 per 1000 of the population; during 1861–70 it was 43·6; during 1871–80 it was 31·3; and during 1881–90 it was 26·2 per 1000. During the past three years of the current decade the proportion further declined to 22·9 per 1000. With regard to London, the proportion of paupers during the quarter ending September last showed an increase greater than in the country generally, and exceeded that recorded in any recent year. During the first two quarters of the current year the proportion of paupers to the population also showed an increase upon that recorded in the corresponding periods of the preceding two years.

A MEDICAL "VICTIM OF CIVILITY."

DR. NATHAN SCHWARZKOPF, an Austrian medical man, recently met with his death in rather a curious manner. One day, while walking in the street, he noticed that a man's hat had been blown off by the wind and ran to pick it up. While doing so he received a blow on the hand from the walking-stick of another pedestrian who was also trying to stop the hat. This accident, which appeared slight enough at the time, resulted in a suppurating wound and ultimately in general septicæmia, from which, in spite of timely surgical treatment, death ensued. The deceased "victim of civility," as he has been termed, was in the prime of life, being only forty-three years of age.

THE PREVENTION OF DEATH FROM AFTER-DAMP.

IT is well known that carbonic acid exerts no direct toxic action, and Dr. J. S. Haldane, in his interesting paper on the Causes and Prevention of Death by Suffocation in Mines, read before the British Association, has called attention to the fact that a large number of miners lose their lives every year for want of a temporary supply of oxygen. The fire-damp before explosion acts merely as a diluent, and the choke-damp produced by the explosion differs from ordinary air in containing more carbonic acid and less, usually much less, oxygen. Dr. Haldane and Dr. Lorrain Smith have investigated with much care the effect on respiration of increased carbonic acid and decreased oxygen. They find that when the carbonic acid present in the air reaches 3 per cent. there is an increase in the number of respirations. The distress goes on increasing rapidly, until 18 per cent. is reached, when it becomes acute. As we should expect, these indications were found to be quite independent of the quantity of oxygen present, provided there was not less than 10 per cent. The action of the increased carbonic acid would be to prevent entirely the free interchange of gases in the lungs, so that the blood would become intensely charged with the products of combustion. An increase in the quantity of oxygen present would consequently be of no service. The experiments on inspired air containing gradually decreasing quantities of oxygen are very interesting. It was found that when even 8 or 9 per cent. of oxygen had been removed from the air no difference could be distinguished in the respiration. The results of an investigation by Dr. W. Marcet, F.R.S., on Respiration at High Altitudes are interesting in this connexion, for he found that although the volume was somewhat greater the actual weight of air breathed under low pressure was considerably less than usual. The lungs, owing to the diminished tension, clearly got more work out of the air inspired than they did under normal pressure. The distress caused by diminishing the oxygen still further below 10 per cent. was much less acute than in the case of increased carbonic acid. This constitutes a serious danger, for the danger-point is reached quite suddenly. The subject under experiment may indeed become perfectly livid before he feels any ill-effects himself. Then, all at once, come loss of motive power and insensibility. After eight or nine respirations of air containing 2 per cent. of oxygen Dr. Lorrain Smith was rendered insensible without having felt any previous inconvenience. Regarding the whole subject of after-damp by the light of his researches on respiration, Dr. Haldane considers that the loss of life is due to want of oxygen. He avers that if men imprisoned in mines after an explosion had a supply of oxygen sufficient to last them twenty minutes there are always plenty of passage-ways by which they could reach the bottom of the shaft, where there is fresh air. He estimates that 60 or 70 litres would be required for an hour's respiration. This quantity could be compressed into a small steel tube at a cost of sixpence, and an indiarubber connexion with a mouthpiece and a regulating valve would enable it to be brought into operation when required. The only difficulty we can see is that the miners would probably object to carrying the apparatus with them, and if depôts were arranged they would not be at hand when wanted. In one part of his paper Dr. Haldane calls attention to the foul gases produced by gunpowder explosions. This is another argument for the use of high explosives only in mines, a recommendation made by the Royal Commission and advocated repeatedly in the columns of THE LANCET.

ARMY MEDICAL ORGANISATION.

THE *United Service Magazine* of December contains an article on the above subject which is sure to attract the attention of our military medical readers. Owing to the courtesy of the editor we have received the advanced sheets of the article in question, but with the limited time and space at our disposal it is impossible to subject a lengthy paper dealing with a very difficult question to any critical review, and we must therefore content ourselves by referring briefly to its nature and scope. We may say that it is, from the writer's standpoint, a bold and ably written and condensed history and argument, in which the present organisation of the army medical service is critically examined, and the reasons for the reorganisation and reforms that are, in his opinion, needed to render it efficient and adapted to the requirements of the State, the army generally, and the circumstances of modern war, are vigorously set forth. An article of this nature almost necessarily bristles with contentious and, as lawyers say, arguable matter, and it must be added that it hits hard in various directions. The writer has evidently studied his subject, and is well informed. There are many points on which, as will be seen, he is not at all at one with the views entertained by medical officers. After alluding, for example, to the urgent and immediate importance of army medical organisation, the confessed unpreparedness of the department for field service, and the necessary remedial measures on which all are agreed, he touches on the question of the use of military titles for medical officers—an innovation to which, he says, the older officers (of whom we may hazard the conjecture that he is one) have not readily acquiesced, because they regard those titles as degrading to their profession, or calculated, at least, to put it in a very subservient position. The writer next alludes to the Sidney Herbert warrant for the medical services after the Crimean war, conferring certain rights and privileges on the department with the view of increasing its efficiency and raising its professional reputation—a high purpose which has, he affirms, been lost sight of and ignored by its leaders. The administration of the department, and the causes that led to Lord Camperdown's committee and the findings of that committee, are then passed in review and carefully examined. Allusion is

made to the fact that nothing is done in the way of promotion to encourage professional merit or devotion to duty—a neglect for which the medical and not military authorities are responsible. He regards pure military rank and title for medical officers as undignified—the husk without the kernel. Summarising his proposals, the writer advocates the amalgamation of the Army Medical Staff and Medical Staff Corps into one homogeneous body as the medical division of the Army Service Corps under the Quartermaster-General; the attachment of a medical officer to each corps or regiment for a term of years; the abolition of voluntary retirement at twenty years; an increase of age for compulsory retirement of officers of the three upper grades; the abolition of half-pay appointments; and the appointment for fixed periods for the three highest grades, on the completion of which, if not promoted meanwhile, the incumbents are to be placed on temporary half-pay. The paper does not readily lend itself to analysis and condensation, and it should be read—as no doubt it will be—in its entirety.

ABOLITION OF THE OFFICE OF CORONER IN AMERICA.

THE office of coroner in the United States was derived from England. It has long been regarded as obsolete, and in many States has been abolished. In its place the State of Massachusetts has substituted a system of verification of deaths by a competent medical officer, who is required to report all cases in which there is a suspicion of crime to the prosecuting officer. This officer proceeds to institute the necessary legal inquiries for the detection of the criminal, the medical officer appearing as the expert witness. This system is said to have given excellent results. We understand that the amended constitution of the State of New York will abolish the office of coroner, and in its place the next Legislature will be called upon by the medical profession to substitute a system not unlike that of Massachusetts.

"A BIRD-LOVED SUBURB OF LONDON."

UNDER the title of "A Bird-loved Suburb of London" Mr. W. C. J. Miller, Registrar of the General Medical Council, has contributed to *Nature Notes* a very interesting little essay. It is an exposition of the rural charms and sylvan scenery to be found at Richmond and its immediate vicinity, and the President of the Richmond Literary Society, which is yet another synonym for Mr. Miller, is evidently one of those fortunate people who live in a place that they love. This is quite an old-fashioned trait, and whereas it was wont to be very generally esteemed a virtue such love of home is now either very generally absent or concealed and treated as a thing to be ashamed of—a proof, as it were, of the homely wit of the home-keeper. Yet everybody knows that many of the finest observations in natural history have been made by lovers of home. To those, Mr. Miller says, who desire "the sights and sounds of rural life no suburb of London is so pleasant to live in as Richmond. The park affords a perennial charm; the less known and less visited surroundings of the park furnish scenes the interest whereof is well nigh inexhaustible; and the Terrace Gardens, that we owe to the laudable enterprise of the town, present lovely slopes, terraced walks and flowers, and charming river peeps, with varied aspects of plant life and bird life, the like of which it would be difficult to find on any other spot whatever so near London." As is sufficiently indicated by the title, the particular one of these attractions upon which Mr. Miller lays stress is the multifarious presence of birds, and in viewing their manners he displays at one and the same time accurate knowledge and a very pretty fancy in phrase. We doubt if many of our London readers are aware how rich the most popular and best known stretches of the Thames valley are in bird life. Two remarks appear to us especially worth quoting. One is, that it is possible to acquire the habit by which the confidence of birds can be secured and by which they recognise that the observer in no wise regards them with enmity. The other, that the truest lovers of nature are quite content to watch and observe without the slightest wish to kill and thus secure the fullest confidence and harmony with all living creatures. We congratulate the Registrar of the General Medical Council upon his pleasant and profitable method of sweetening the labours which our report in another column reveals as arduous and not altogether pleasant.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

ON Thursday, Jan. 3rd, 1895, a meeting will be held of the Fellows of the College, and any Fellow who wishes to bring forward a resolution at this meeting must give notice of his resolution to the secretary of the College before Thursday, Dec. 13th. This meeting is one of the recently established meetings of the Fellows apart from the Members. Two meetings are held each year, on the first Thursdays in January and July. They must be carefully distinguished from the meetings of Fellows and Members, held once a year in November, and which have been held annually for ten years. They must also be distinguished from the meetings of Members, which are held at such times as shall seem advisable to the Council. Regulations for all these meetings have recently been drawn up by the Council, and have been published in the columns of THE LANCET.

THE DANGERS OF THE STREETS.

THERE is little doubt that hooded vans and bicycles are the vehicles which contribute more largely than any other to the dangers of the London streets. The huge furniture van is, however, as far as our observation goes, a greater nuisance and cause of obstruction to all the rest of the road traffic than an actual danger to the pedestrian. Every year vehicular traffic claims its tribute of victims, but hooded vans and bicycles are probably the chief offenders. Singly they are bad enough, but in combination the danger is more than doubled; for what with the size of the one, with its driver buried from sight and deaf to remonstrance, and the silent and stealthy but rapid pace of the other the pedestrian has a poor chance. In crossing a street he passes behind one of these hooded vans, which, if it shelters him for the time being, also shuts out all objects from view, and as he emerges from it a bicycle is upon him before he knows where he is. The collision is, to say the least, very unpleasant, and sometimes far worse, for the embarrassed and hesitating foot passenger. As to the cyclist, he, of course, imputes all the blame to the pedestrian, and usually loudly remonstrates with him for not having looked before him, or for not having gone on or drawn back, as the case may be, and, in addition to any personal injury or splashed clothing which the unhappy pedestrian may have sustained, he is lucky if he escapes much noisy vociferation or abuse in order to cover the rashness or carelessness of the cyclist. The cyclist's little bell is of very small service in the way of warning, for the bell is either not sounded at all or not in time to be of any use; the bicycle, ridden at a rapid pace, is on the foot passenger from behind or from the side of a big vehicle before he sees it. There is no doubt that the presence of a number of these bicycles in our crowded streets is often a real nuisance and a source of danger—especially in the dusk. While we fully recognise the advantages, the economy, and convenience of this mode of travelling, and the healthy exercise that it affords to a large class of the population, we

cannot shut our eyes to its inconveniences and dangers, and we think that the practice needs careful watching and checking on the part of the police.

"ANTITOXIN" AND "ANTITOXINE."

LAST week we drew attention to the introduction into the field of pharmaceutical novelties of a substance, claimed to be antipyretic in action, to which the name of "antitoxine" had been applied; and we deprecated the use of such a term, the word "antitoxin" being employed in a different sense and with respect to a different method of treatment of disease. We now learn that the owner of the antipyretic referred to "created" the name "antitoxine" some three or four years ago, "solely as a name for this antipyretic." Perhaps it will be as well to quote the precise words of the statement made to us:—

"To correct an erroneous impression, the owner of the antipyretic which is being placed upon the English market by Messrs. Barclay and Sons, Limited, of 95, Farringdon-street, London, wishes to state that the name 'antitoxine' under which it is being sold was created by him some three or four years ago here in London solely as a name for this antipyretic. Trade-mark registration was, however, first secured in the United States of America in October, 1892, shortly afterwards in Canada, and since then in several other countries. In order that no confusion may arise as a result of the adoption of this name by others, a very liberal use of explanatory circulars will shortly be made to both doctors and chemists. We wish it, however, clearly understood that 'antitoxine' was used for the first time as the name of this antipyretic, and also that we shall continue in our present use of the name."

We are happy to give publicity to this correction, but beg to point out that practically the name antitoxin or antitoxine (for their difference is *nil*) will now be appropriated to the serum remedies for tetanus and diphtheria, so that the prior claim will have but little weight. We can therefore only repeat the advice we have already given, though we do so recognising that the proprietors of the antipyretic have been unfairly blamed for usurping a term to which they had apparently a very good claim.

THE VENTILATION OF INDIAN FACTORIES.

THE marked atmospheric dryness prevailing in tropical climates as a result of the high temperature has a most prejudicial effect in the processes of cotton manufacture in India. The native spinners of yarn for the finest muslins had found by experience, says the *Indian Textile Journal*, that their work was successful only during the rainy season, when the air was loaded with moisture; that, in fact, there could not be too much moisture in the air for fine spinning. This has been found to be the case even in foggy England. But this being so, the question of the health of the operatives immediately arises. If the steamy atmosphere of the English weaving sheds is a source of legitimate complaint on the part of the hands, we can well understand that the position holds good still more strongly in India. There the operatives are subjected to much more insanitary conditions under some of the systems adopted for securing the needful humidity. One of these methods consisted in simply ignoring ventilation altogether, and evaporating water from the dirty floor. A less objectionable means of producing the same result is the discharge of spray into the atmosphere by mechanical means. In either case, where the outer air is very dry the doors and windows of the building must be kept closed to prevent the moistened air from being replaced by dry air, and the rebreathed atmosphere under these conditions becomes incredibly foul. In India the air may be so dry that its vapour component is only 13 per cent. of the amount necessary for saturation, and there are great difficulties in the way of an instantaneous addition of sufficient moisture to produce the humidity needful for cotton-spinning—namely, not less than about 70 per cent. of saturation. We learn, however, with satisfaction that efforts are being made to introduce a system based upon a constant supply of air proportioned in some degree to the needs of the workpeople and prepared by a moistening process before it enters the building. The methods at present in vogue, to which we have briefly referred, are their own condemnation.

DIPHTHERIA IN THE NEW FOREST.

A REPORT recently issued by the Local Government Board on an outbreak of diphtheria in two villages of the New Forest rural district displays a serious state of things as having existed therein during the present year. Dr. H. Timbrell Bulstrode, in making his report, tells of 21 cases of the disease arising in January at Hythe, with as many as 9 deaths—a mortality of 43 per cent. of cases. Of the attacks 17 occurred in children up to fifteen years of age. The malady would seem to have been imported into the locality, and then to have spread by personal infection—a concert in the third week of January being looked upon as having had a large part in disseminating the disease, school influence later exercising a similar potency. An outbreak, limited to 8 cases, occurred also at Bramshaw, in the same district, in January and February, with 3 deaths. The source of origin was not ascertainable, but the spread seems to have been brought about by the attendance at school of children having infective sore-throats capable of inducing true diphtheria in other persons. We are told that the sanitary authority possess no hospital accommodation and no disinfecting apparatus; and that absolutely nothing in the way of isolation had been effected when Dr. Bulstrode visited Hythe, though the histories of the invaded families showed that such action would probably have curtailed the prevalence and have saved life. No disinfection of houses seems to have been carried out on any systematic principle, though some "disinfecting powder" was distributed. The parish, with its 700 inhabitants, has its water mostly from shallow wells, drysteined, and not protected from surface impurities, some being situated dangerously near to privies. There is hardly any sewerage, the system of excrement disposal is faulty, and by-laws and regulations appear to be entirely lacking. It is to be sincerely hoped that the report will stimulate the sanitary authority to action.

FRIEDREICH'S ATAXY.

IN the *University Medical Magazine* for June, 1894, Dr. Charles W. Burr gives an account of a case of this interesting disorder. The history of the patient was that she was well up to her tenth year. She began at this time to be "nervous," her hands shook in using them, and her gait became staggering and uncertain. An attack of typhoid fever had a marked effect in increasing the weakness of the lower limbs. There were subjective sensations of heat in the feet and fatigue in the legs, but no objective change. There were no shooting pains, but the knee-jerk could not be obtained on either side. The intelligence was good, the pupils were normal in their reactions, no change was discovered in the fundus, but nystagmus was present. The urine contained albumen. The only point of interest in the family history was that a brother was similarly affected. Some years later, in 1892, she came under observation. Her symptoms were considerably aggravated and there was sugar in the urine. Sensation was also delayed, but there was no anæsthesia to deep pressure. She died in September, 1892. The necropsy revealed tuberculosis at the apex of the right lung and a tuberculous abscess of the right kidney; otherwise the abdominal and thoracic viscera were normal. The meninges of the cord and brain seemed normal, and although the cerebrum, cerebellum, pons, and medulla were all small they could

not be described as atrophic. The cord also seemed small and of rather harder consistence than normal. On examination of the cord after hardening and staining there were found to be marked sclerotic changes affecting chiefly the posterior columns and also the anterior and lateral pyramidal tracts. The condition was similar throughout the cord in the cervical, dorsal, and lumbar regions. The posterior nerve-roots were also found to be degenerated, but the anterior were normal. In conclusion Dr. Burr gives an excellent *résumé* of the views held by various observers as to the nature and origin of the sclerotic changes present in the cord in this disease, and he expresses his belief that a neuroglial sclerosis of the posterior columns is the primary lesion. Dr. Burr is to be congratulated on the care and completeness with which he has carried out his investigation.

"CRAMMING" IN BOARD SCHOOLS.

MR. T. PRIDGIN TEALE has once more been lifting up his voice against "cramming" in education. This time, in the *Yorkshire Post*, it is with reference to Board school education and questions raised during the contest in Leeds. Mr. Teale seeks to direct attention to a real evil—viz., the pressure put on children by the action of the Leeds Board, even the youngest having to perform impossible feats of lessons or of drill. Towards the examination time this pressure becomes acute. He makes many startling statements on the authority of persons on whose accuracy he can fully rely, of which the following is the gist. Corporal punishment is needed because the time given is not sufficient to draw forth the best the child can do. In many schools the recreation interval in morning and afternoon schools is omitted for the furtherance of "cram." The Leeds Board has reimposed the system of percentage which the Government has abandoned. Infants aged three and four years are examined in mental arithmetic, arithmetic on slates, in "phrasing" of sentences, &c. Before drill examinations children from eight to thirteen years of age are kept at drill from half-past ten to twelve and for an hour in the afternoon. We congratulate Leeds on having for one of its citizens a member of the profession who feels it his duty to point out such great evils. Some of the statements seem scarcely credible, but Mr. Teale is not a man likely to have made them on insufficient evidence.

THE RECENT SMALL-POX EPIDEMIC AT WILLENHALL.

MR. TILDESLEY, the medical superintendent of the small-pox hospital at Willenhall, has just issued an interesting report on the recent small-pox epidemic in that town in so far as the cases of the disease were isolated. The evidence which Mr. Tildesley has adduced is full of valuable matter, and is conclusive once again of the efficiency of vaccination. From June 11th to Nov. 4th of the present year there were 261 patients treated in the hospital, but these do not by any means include all the cases notified, since many were treated at their own homes, especially prior to the opening of the institution. Briefly stated the data are as follows: Of the 261 patients, 48, or 18·4 per cent., were aged ten years and under; other 101, or 38·3 per cent., were aged from eleven to twenty years; the cases from birth to twenty years of age being 149, or 56·7 per cent. of the whole. The deaths numbered 14, being at the rate of 5·3 per cent. of attacks; but whilst as many as 13 were in the 36 unvaccinated patients, yielding a mortality rate of 38·8 per cent. of cases, there was only a single death among the 225 vaccinated persons, a percentage of only 0·44—or, in other words, the mortality among the unvaccinated cases was relatively eighty-eight times as great as among the vaccinated. All of the unvaccinated cases without exception were confluent attacks, but of the other class only 5 per cent. were of that nature. The single death in the vaccinated was in a person who had only one faint and doubtful scar visible. In each of 41 cases either not vaccinated or having but one faint scar the disease took a severe form, frequently accompanied by complications. All the 119 cases with four scars passed through mild attacks with no sequelæ. In regard to the total cost of the epidemic in its isolation phases, Mr. Tildesley points out that the weekly average cost per patient was only 15*s.* 9*d.* Each patient cost the rates on the average £2 15*s.* 6*d.*, this covering maintenance and nursing for the average stay in hospital of twenty-four days. The hospital management is to be congratulated on such a very reasonable outlay.

HOMICIDE IN THE ITALIAN ARMY.

"ORDINARY breach of discipline," says a high medico-military authority, "is rarer in the Italian than in any other European army. Not so with manslaughter, which has become neither more nor less than a horrible specialty (*una orribile specialità*) of the Italian service." The wholesale slaughter of comrades perpetrated by homicidal maniacs like Misdea, Magri, Torres, and quite lately Radice and Renando, seems to multiply from year to year in the peninsula until the army of Italy threatens to prove more destructive to itself in the barracks than to the enemy in the field. Her War Office is seriously engaged in devising measures to check the phenomenon, and one critic believes he has laid his finger on the cause when he points to the "obbligatorio servizio" (obligatory service) enforced so sternly throughout the kingdom. It is quite true that under that system the ranks are periodically recruited from the prisons—the budding criminal or full-fledged malefactor recently emerged from "strong lodgings" having equally to serve with the young shopman, or agricultural labourer, or university student. There is thus introduced into the army a contingent of possible Misdeas and Magris—to the inevitable demoralisation of the service and the periodical outbreak of crime, homicidal and other. To exclude from the conscription all whose record is criminal seems the obvious course in these circumstances; but the objection to this is immediate and unanswerable. Italy would then have her youth disqualifying themselves for the army by qualifying for the prison; and just as personal mutilation was and is practised to evade military service, so will there be moral taint—crime, in short—cultivated with the same object. Italy, of all countries, cannot afford to put this premium upon criminality. Another and a far sounder remedy is that proposed by the medical school of which Lombroso and his disciples are the head. Let the preliminary inspection of the conscript be conducted on a far more thorough, scientific, and satisfactory system than that now in force. Let the psychological expert act as assessor to the army surgeon in excluding the mentally infirm as well as the bodily defective. Let the tests familiar to such alienists as Italy possesses in abundance be carefully applied so as to exclude the brachycephalous, the cranially unsymmetrical—the victim, in short, to congenital misdevelopment—and one source of the introduction of crime into the army will be blocked *ab initio*. Dr. Frigerio, director of the lunatic asylum at Alessandria, whose luminous and incisive review of the Magri case was recently noticed in these columns,[1] demonstrated conclusively that had that wholesale homicide been properly examined at the conscription his physical and mental conformation would have relegated him to the "manicomio" (madhouse) rather than to any society, civil or military. When too late—when, indeed, on his trial for a series of homicides committed suddenly in barracks—that wretched epileptic was found to be "ultra-brachycephalic, with want of symmetry in the nasal, oral, and

[1] THE LANCET, Sept. 22nd, 1894.

facial development, with strabismus, and with that peculiar throwing wide the arms ("apertura delle braccia") which Lombroso makes a pathognomonic sign of mental neurosis. The purely psychological analysis of the case confirmed the physical diagnosis, and Magri was condemned to life-long imprisonment instead of being shot. But the supercilious disregard of the psychological evidence was an ominous feature at the trial—boding ill for the future exclusion of such dangerous imbeciles from military service. Now, however, the necessity for some such preliminary inspection as Lombroso and Frigerio insist upon is possessing the public mind, and an appeal to the Legislature in that sense is imminent. Meanwhile the advocates of "let ill alone" are urging a new objection to the proposed innovation—the expense which such an addition to the medical examiners of conscripts would entail. Indeed, the retrenchments just proposed in the military service affect the hygienic far more than the combative arm, a fact which is not encouraging for the reinforcement of the regimental surgeon by the psychologist at conscript examinations. But the answer that ought to weigh with the Legislature is this—economy, not expense, would be the result of such an addition to the medical staff as the presence of experts at the examination of conscripts would imply. To say nothing of the loss of well-drilled soldiers, murdered wholesale, in the epileptic explosions of a Misdea or a Magri, long and expensive trials such as those to which they were subjected would be spared. This is one out of many arguments in favour of the reform suggested — arguments which Italy cannot afford to disregard, however distasteful they may be to a War Office which inscribes over its portals "Quieta non movere."

THE DISTRIBUTION OF ANTITOXIN.

DR. JULES FELIX of Brussels, who was one of the delegates of the Belgian Government at the International Congress of Hygiene at Budapest, has been energetically protesting against the attempt already made to trade in the manufacture and sale of antitoxin. He has brought the subject before the Belgian Medical Federation. At his suggestion a resolution was unanimously adopted calling upon the Belgian Government to at once establish a State institute for the production, preservation, and distribution of antitoxin, with all possible guarantees to ensure its purity and its gratuitous distribution in sufficient quantities to all Belgian medical men, so that, at least, the poor might be inoculated free of charge, while persons with means should be called upon to pay only a reasonable price. This resolution was at once forwarded to M. de Bruyn, Minister of Agriculture and Commerce. In a memorial drawn up by Dr. Felix, and submitted to M. de Bruyn, it is proposed that an institute should be created in connexion with the veterinary college of Cureghem, where proper care could be taken that only suitable horses were employed. The veterinary surgeons of the school, acting in conjunction with the veterinary surgeons of the army, could choose from the old cavalry horses animals free from disease and well suited for the purpose. An administrative committee composed in part of medical men and of veterinary surgeons should, he considered, be appointed. The Belgian Government Institute for the production of vaccine lymph has served as a model to other countries, and has given the greatest satisfaction to the Belgian medical profession. Dr. Felix urges that a similar institution should be created for the production of antitoxin. Already there is offered for sale in Brussels antitoxin serum of the horse, manufactured wholesale at Berlin. The price charged is no less than 16*s*., or 20*f*., per ten grammes. This is for quality No. 3, which is the strongest. Nos. 2 and 1 are weaker. As, according to M. Roux, twenty grammes should be employed per day, the injections for one day would cost 32*s*. The commercial exploitation of scientific discoveries—and this without the slightest advantage to the men of science whose researches are destined to benefit mankind—that the above charges represent is evident. In Belgium a sound, but old, cavalry horse can be bought for £8; three months, at most, are required to render the horse immune; and at two francs a day for the horse's fodder this makes £7 4*s*., giving a total expense of £15 4*s*. A horse may be bled three times at least, and each operation will yield three litres of antitoxin, or nine litres in all. This would mean 9000 grammes for £15 4*s*., which are sold at Brussels at twenty francs per ten grammes, or in all for £620. To sell for £620 what certainly should not cost more than, say, from £15 to £20 to produce is a transaction well calculated to strengthen the demand for State interference.

THE DIFFUSION OF SMALL-POX.

NEXT to total extinction, small-pox in London has now reached its lowest ebb, only two cases having come to light last week and three cases in the preceding week. On Saturday last there remained in hospital only 33 patients, against 48, 51, and 42 on the three preceding Saturdays. No death from the disease was registered in London last week, but the death of an infant was registered from "chicken-pox, bronchitis." In the Midlands we learn of the invasion of Aston Manor, Smethwick, and West Bromwich by a few cases in each instance; but at Birmingham the record showed no improvement on that of the week before, the attacks exceeding a score and the registered deaths being 5. At Liverpool the cases rose slightly to 10, and 1 death was registered. Elsewhere not much news reaches us as to the disease in England. In Dublin there are but few signs of decrease of the small-pox epidemic. True, it has left the north side of the river Liffey, but only to locate itself on the southern bank. During the five weeks of October there were 13 deaths registered in the city and 112 cases notified, the notifications for the last six months having been: in May, 6; June, 9; July, 13; August, 91; September, 66; and October, 112. In this last month the admissions to hospital numbered 87, a slight increase on the record for the previous month. The 112 cases were notified from 59 different streets or groups of dwellings. This record up to Nov. 3rd was followed by the admission of as many as 37 patients to hospital in the succeeding week, with 35 discharges, 4 deaths, and a remainder of 81 cases under isolation; whilst in the week ended the 17th the admissions were 25, the deaths 2, and the patients remaining under treatment at its close 94 in number.

HYSTERICAL FORM OF RAYNAUD'S DISEASE.

DR. LÉVI[1] is of opinion that there is a certain form of Raynaud's disease which is purely hysterical in origin. It may be caused by, or reappear under, the influence of a strong neurotic element, brought about by the existence of a "subconscious fixed idea." It can be made to disappear, or at least can be considerably ameliorated, under the influence of hypnotism, but leaves an appreciable effect on the vaso-motor system which can be more easily influenced than before the primary attack. In such cases a history of a previous attack of rheumatic fever is very common, and the parts which were then chiefly attacked are often selected by the condition now under consideration. The onset is sudden, is usually accompanied by urinary symptoms—either anuria or polyuria—and gangrene is possible in this condition. Cases of Raynaud's disease which have been considered of hysterical origin, and which have been treated by hypnotism, are rare; but examples of local congestions in hysterical subjects, or which have been caused by the emotions, are numerous. The above observations are

[1] L'Union Médicale, Nov. 10th.

offered by Dr. Lévi as a contribution to diseases caused by the emotions. They form an addition to the list, already a long one, of the vaso-motor phenomena associated with hysteria. These symptoms cannot be considered to form a definite disease in themselves, but are a part of a series of phenomena which may take the place of one another, and in the form now described are caused by the same neurosis—hysteria. Dr. Lévi accepts the theory of a central origin of hysterical affections, and points out that for their treatment a careful inquiry should be made into the psychological history of the patients, so as to enable the physician to detect any neurotic tendency, and so exclude the possibility of organic disease. He considers that hypnotism is of great value both as regards the diagnosis and the treatment of such cases.

THE *Pall Mall Gazette* of Nov. 22nd published a very sensible article on "Dentists and the Public," in which, after giving a brief account of the Dentists Act, which was passed in the interests of and for the protection of the public, it is pointed out that the men who advertise are generally unqualified, and use the term, "American dentistry" just as bakers do "Vienna bread." We might add that those who are led away by specious advertisements are worse off than those who are gulled by moneylenders, for they not only lose their money, but often an irremediable amount of harm is done to the teeth.

THE British Institute of Public Health have made arrangements for a lecture to be given in the Examination Hall of the Royal Colleges of Physicians and Surgeons, Victoria Embankment, on Friday, Dec. 7th, at 5 P.M., by Dr. G. Sims Woodhead, the Director of the Research Laboratories of the Royal Colleges, entitled "The Diagnosis and Antitoxic Serum Treatment of Diphtheria." It is hoped in this lecture to give an authoritative statement of all the facts bearing on this important subject, and we understand that the Council of the Institute will be very glad to see any of our readers present.

THE Sanitary Institute has arranged for a discussion to be held at the sessional meeting on Dec. 12th, at 8 P.M., on the Sanitary Aspects of the London Building Act, which has recently been passed, and which will come into operation on Jan. 1st next. Dr. G. B. Longstaff, chairman of the Building Act Committee of the London County Council, will open the discussion, which should be interesting to the profession as well as to members of local boards and vestries, as the new Act contains a number of provisions of great sanitary importance.

THE Harveian lectures will be delivered before the Harveian Society of London at the Stafford Rooms, Tichborne-street, Edgware-road, on Thursdays, Dec. 6th, 13th, and 20th, at 8.30 P.M., by Mr. Herbert W. Page, F.R.C.S., the subject being Some Disorders of Nervous Function due to Injury and Shock. All medical men are welcome to attend upon presentation of visiting card.

DR. RUSSELL REYNOLDS, F.R.S., President of the Royal College of Physicians, Dr. Hermann Weber, Dr. Douglas Powell, and Dr. Cheadle have been elected Consulting Physicians of the Royal National Hospital for Consumption.

WE understand that a new "Society of Members of the Royal College of Surgeons of England" has just been inaugurated in London, and that a full programme will be published shortly.

Pharmacology and Therapeutics.

GOSSYPIUM HERBACEUM AS A HÆMOSTATIC.

THE root of the cotton plant gossypium herbaceum, which has been used in America and occasionally in Europe[1] as a substitute for ergot in labour and to check metrorrhagia, has recently been very strongly recommended by two Russian practitioners as a powerful hæmostatic. Dr. Poteyenko[2] prescribes twenty or thirty drops of the liquid extract three or four times daily in hæmorrhage of various kinds, and has frequently found it succeed where all other remedies have failed. In three years he has treated fifty-nine cases in this way, with entire success in fifty-two of them, only being obliged to resort to other remedies in five instances. In thirty of his cases the hæmorrhage was from the female genitals, in twenty-one from the lungs, in six from the nose, in one from the rectum, and in one from the stomach. He thinks the drug entirely harmless, even when the patient happens to be pregnant, and considers that it merely affects the blood-supply of the mucous membrane, and has no influence over the uterine contractions. Dr. Narkewicz[3] uses an infusion which he believes is more active than the liquid extract. A tablespoonful is prescribed every hour or even every half-hour. He has used it only in uterine cases. In one instance, where the patient was vomiting, two enemata of about three ounces of the infusion were given with success after hot-water douches had failed.

NAPHTHOL CAMPHOR IN HIP AND SPINAL DISEASE.

M. Ménard, of Berck-sur-Mer, stated in a paper read before the French Surgical Congress[4] that he has almost been able to dispense with operative measures in hip disease and Pott's disease in children by employing naphthol camphor. During the last two years he has treated forty cases of diseased hip and forty-two cases of Pott's disease in this way. Of these, thirty-seven of the hip cases recovered from the abscess without any fistulous period. In two of them, however, suppuration returned, and resection was required. Four recovered after fistulæ, which lasted for from four to twelve months. Only one case was discharged with a fistulous opening. Of the forty-two cases of spinal disease thirty-seven also were cured without fistulæ, one was discharged with an open sinus, and two died from tuberculosis. In one case the liquid produced toxic symptoms. The method of procedure is as follows. A large trocar is inserted into the cavity of the abscess and fixed there while a thorough washing out is performed with boiled water. Naphthol camphor is then introduced, the quantity depending on the size of the cavity. If after a time the abscess shows signs of returning a fresh puncture is made. The liquid which flows out is found to be quite clear and smells strongly of camphor. If the case is approaching a cure the pus is very fluid. More naphthol camphor is introduced, and this proceeding is repeated as often as may be necessary. Usually eight or ten punctures are required and the case lasts from four to twelve months. M. Ménard has noticed that abscesses which appear late are more amenable to treatment than those that appear at a very early period. His method is not suited for cases where sinuses already exist or where ordinary suppuration microbes are present along with tubercle bacilli.

ADONIS VERNALIS WITH BROMIDES IN EPILEPSY.

Referring to the observations of Dr. Todorsk[5]—which showed that epileptic attacks must be due to vasculo-motor changes in the brain in the form of active cerebral hyperæmia, and remarking that the action of bromine compounds on epilepsy consists principally, as far as we can judge, of a diminution of the irritability of the cerebral centres, and more especially of those in the cortex—Professor Bekhtereff states in the *Neurologicheski Vêstnik*[6] that for many years he has successfully prescribed a combination of adonis vernalis with bromides in epilepsy, which, raising the blood pressure, diminishes to some extent the lumen of the vessels themselves. The mixture he gives is made by adding to the ordinary solution of from two to three drachms of bromide in eight ounces of

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[1] See THE LANCET, Sept. 27th, 1884.

[2] Meditzinskóe Obozrênie, No. 23, 1893, quoted in Allgemeine Medicinische Central-Zeitung, Oct. 13th, 1894.

[3] Zemski Vrach, April 7th, 1894, quoted in Allgemeine Medicinische Central-Zeitung, Oct. 13th, 1894.

[4] Report in Le Bulletin Médical, Oct. 17th, 1894.

[5] Meditzinskóe Obozrênie, No. 10, 1894. Quoted in the Vrach, No. 25, 1894.

[6] Vol. ii., Fasc. 3. Quoted in the Vrach, No. 43, 1894.

water one drachm of tincture of adonis, and as a sedative three grains of codeine. Of this a tablespoonful is taken from four to six or even eight times per diem. This is continued for many months and never occasions any unpleasant effects. In the course of several years Professor Bekhtereff has never seen a case in which this treatment systematically carried out has failed to produce at least some improvement, the attacks being either altogether put a stop to or diminished in frequency and severity. Digitalis, if substituted for adonis, produces a similar effect, but is not so suitable on account of its cumulative action, which renders it impossible to continue it for any long period of time.

OIL INJECTIONS IN DRY PLEURISY.

Dr. Cérenville[7] of Lausanne, in obstinate cases of dry pleurisy, injects about thirty drops of olive oil, previously sterilised, with the object of imitating nature in providing a lubricating fluid. This very small quantity of oil appears to be sufficient for the purpose, as it is very diffusible and rapidly spreads over a very large part of the surface of the lung. With care and practice it is not difficult, he says, to find the right depth to insert the needle so as to penetrate into the pleural cavity without wounding the substance of the lung. He has up to the present time employed this little operation in ten cases which had resisted the ordinary methods of treatment by external stimulating applications &c. In two of them only was no beneficial result observed, in six a marked improvement in the pain took place within a few hours, while in the remaining two cases a complete and lasting cure was obtained. It is obvious that this plan may conceivably be useful in pericarditic troubles; indeed, Dr. Cérenville has employed it already in one case of the kind. Of course, he does not recommend that in every case of dry pleurisy olive oil should be injected, but he brings his plan before the profession as one that may fairly be tried in obstinate and painful cases when other and more ordinary means have failed. The site which should be chosen for the insertion of the needle is the spot where the friction sounds are the most distinctly heard.

SENNA IN THE INCONTINENCE OF URINE OF LOCOMOTOR ATAXY.

Dr. Angel Bilbao,[8] having prescribed a senna purgative for several consecutive days in a case of commencing locomotor ataxy, was surprised to find that the incontinence of urine which had existed was arrested. That this was due to the senna was evident, because when the medicine was discontinued the incontinence returned, to disappear again on the resumption of the treatment. Subsequently this remedy was tried in eleven cases of the early stage of ataxy where there was incontinence. In five of them the urinary trouble disappeared in from ten to twelve days' treatment with infusion of senna. In the rest the incontinence was diminished.

[7] Communication to the French Congress of Internal Medicine. See Le Bulletin Médical, Nov. 18th, 1894.

[8] Revista de Méd. y Cir. Práct., September, 1894, quoted in La Independencia Médica, Nov. 8th, 1894.

THE CHELSEA HOSPITAL FOR WOMEN.

A SPECIAL MEETING of Governors of the Chelsea Hospital for Women was held at the hospital on Wednesday, Nov. 28th, 1894, to elect a new Board of Management and to receive suggestions from the medical staff. Sir Algernon Borthwick, Bart., M.P., presided.

In opening the proceedings the CHAIRMAN briefly alluded to the sequence of events which had led to the present meeting. The Committee of Investigation in their report spoke severely of some of the classes of work of the hospital, and there was a general tone of a certain amount of blame. The question of mixed committees had been considered, and in the future the Committee of Management would consist of laymen only. There would, therefore, be a committee of laymen and a house committee of medical men. These committees would interchange their opinions from time to time. The Committee of Management would have attached to it one of the medical staff, who would always be ready to give advice to the committee, but he would not be a member of that committee, and would not have a vote upon it. All the recommendations of the Committee of Investigation had been carried out. The present Board of Management now placed their resignation in the hands of the meeting. He explained that this was necessary owing to another misunderstanding. They had asked some eminent members of the medical profession to help them in the choice of physicians for the hospital, and it was felt that it would be better not to have general practitioners on the hospital. This was in consequence of a suggestion by Dr. Barnes and Sir Spencer Wells that the general practitioner might possibly convey the germs of disease into the hospital. By an oversight this exclusion of general practitioners was left out of the advertisements, and the general practitioners were justly angry when, after submitting themselves for election, they found they were not eligible. Some of the medical journals had taken umbrage at the matter, and complaints had been made in very general terms; but he did not think those complaints were altogether well founded. As a whole he considered that the hospital had been conducted in a manner that would do credit to any other hospital. He was sorry that Lord Cadogan and Mr. Webb-Peploe had tendered their resignations; their retirement would be a great loss to the institution. In submitting the list of names for the suggested new Board of Management to the meeting, the Chairman remarked that he did not see how the work of the board could be carried on if it did not contain two or three members of the old board to give to new members advice.

Sir ALGERNON BORTHWICK then submitted the names of the following gentlemen to constitute the new Board of Management:—Sir Algernon Borthwick, Bart., M.P., Mr. W. L. A. Burdett-Coutts, M.P., Mr. Thomas W. Brookes, Mr. A. J. Wright-Biddulph, J.P., D.L., Mr. James Bailey, Mr. Robert J. Beadon, the Hon. Colonel William Colville, Mr. T. Dyer Edwards, J.P., Mr. Charles Fish, Mr. George Hilditch, Mr. J. L. Langman, Mr. Samuel Lithgow, Sir Oswald Moseley, Mr. J. Cumming Macdona, M.P., Mr. Ernest Oppenheim, Major Probyn, L.C.C., Mr. Holmes Stone, Colonel Shipway, Mr. J. G. Woodroffe, and Mr. J. S. Wood.

Mr. H. D. F. FERGUSSON moved that these gentlemen be elected.

Dr. TRAVERS said the new board was an admirable one, but there were three names upon the list upon whose shoulders the whole work of the hospital lay, and upon whom the blame of the Commission absolutely fell.

Mr. KING seconded Mr. Fergusson's motion.

Dr. TRAVERS moved that the names be voted for seriatim, but the meeting decided that they should be taken *en bloc*, and the new board was appointed by 71 to 9 votes.

Dr. SCHACHT wished for a definition of the term "general practitioner." If this suggestion that general practitioners should be excluded were to become a rule the board should define the term or ask such an authority as the Royal College of Physicians or the Royal College of Surgeons to do so.

Dr. DUNCAN handed in the resignations of himself and his colleagues on the medical staff, upon whose behalf he ventured to make the following suggestions. First, that the new Board of Management should not ask the Governors at the next annual meeting to confirm the nominations. They now tendered their resignations to the new Board of Management, and gave the latter perfect freedom in the selection of a new staff. Secondly, the staff suggested that in advertising for gentlemen to come forward to form the new staff the advertisements should not only state the essential qualifications, but also that the new advertisements should contain the notification of any conditions that would disqualify a candidate for election. Thirdly, they suggested that, as the new Board of Management could not have the advice either of the consulting staff or of the acting medical staff, they having resigned, the coöperation should be sought of several of the leading London surgeons and obstetric physicians. From his experience of other hospitals he was sure the hospital would stand second to no other special hospital in the kingdom. The medical staff proposed to seek re-election, but, meanwhile, would carry on the work of the institution.

The Rev. A. J. MYERS and the CHAIRMAN pressed Lord Cadogan to reconsider his resignation.

Lord CADOGAN made a long statement, going mainly over the ground covered by the letters which have already appeared in THE LANCET. He thanked them for their request, but wished to be allowed not to make any reply on this occasion.

The meeting then closed with the customary vote of thanks to the chairman.

THE CALENDAR OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE facts drawn from the Calendar of the Royal College of Surgeons of England for 1894, which we published in our issue of Oct. 6th, present topics for reflection and comment, but only one or two can be dealt with in this article.

1. With regard to the various orders of practitioners connected with the College it will be observed that the numbers of the Fellows of the College, the Licentiates in Dental Surgery, and the holders of the Diploma of Public Health have increased, whilst the numbers of the Members, and necessarily of the Licentiates in Midwifery, have decreased since the Calendar of 1893 was issued. The number of Fellows of the College has increased by 22, the totals in 1893 and 1894 being 1122 and 1144 respectively. Last year the number had increased by 12 over that for 1892. These two years are probably the first for some time in which any decided tendency towards a genuine increase in the number of Fellows has been exhibited. Prior to 1888 there had been a continuous decrease. Thus in 1874 the Fellows numbered 1296; in 1877, 1254; in 1886, 1124; and in 1887, 1116. Then apparently they began to increase again, for in 1888 they stood at 1122, in 1889 at 1138, and in 1890 at 1153; but in 1891 they were down to 1111, and in 1892 to 1110, to rise again in 1893 to 1122, and in 1894 to 1144. We say apparently, because we think it probable that from 1887 to 1891 the list of Fellows was not so carefully revised as in 1891, for it is not probable that the deaths of Fellows in 1890–91 exceeded the new Fellows for 1890–91, who were no less than 53 in number, by 42. Ninety-six Fellows out of 1153 could scarcely have died in the collegiate year 1890–91. At all events, we think that a point has now been reached at which the annual supply of Fellows by examination will exceed the annual loss by death of Fellows by election and examination. It is not possible, however, to speak with certainty, because there are considerable fluctuations in the number of candidates who come up for the Fellowship, and the disappearance of Fellows is apt occasionally even at the College to escape observation. We cannot otherwise account for the discrepancy between the total of Fellows as published in the Calendar and the number of Fellows who can be communicated with by circular and from whom answers can be received. In 1886 only 987 circulars were sent from the College offices, and only 706 answers were received. In 1889 925 circulars were sent out and only 511 answers received. Nor can we otherwise account for the discrepancy between the same totals and official figures issued to prove how, during the last few years, the supply of Fellows by examination has exceeded the losses by death. The following figures (Table I.), derived from official sources, profess to show the additions of the last six years:—

TABLE I.—*The Additions of Fellows to the College and the Losses by Death from 1888 to 1894.*

	1888–89.	1889–90.	1890–91.	1891–92.	1892–93.	1893–94.
Additions.						
Fellows by Examination	44	45	51	46	48	54
Fellows by Election	1 = 45	2=47	2=53	1=47	2=50	1=56
Deaths.						
Fellows by Examination	7	9	17	13	14	11
Fellows by Election	21 = 28	23=32	26=43	21=44	25=39	20=31
Balance	17	15	10	3	11	24

The ostensible gain since 1887–88, when the number of Fellows stood at 1122, has been 80, and yet the number of Fellows in the Calendar is now only 1144, instead of 1202, or a gain of only 22 instead of 80; 58 must have been weeded out, for 297 Fellows have been added and 217 only removed by death during the last six years. No doubt discoveries of bygone and overlooked or unnotified deceases are made from time to time in the College offices, and such discoveries will upset the most careful calculations. That there is still a considerable opening for fresh eliminations seems to be shown by the fact that of the 1144 Fellows in the list 19 have no addresses appended to their names, 30 belong to the Army and Navy, and 74 are resident abroad. This gives a total of 123 Fellows who, with a few exceptions, may be regarded as not available for collegiate purposes, and who are liable to leave the scene of their labours without attracting official attention. The absence of an address may always be regarded with suspicion where the diploma of Membership is not of recent date, and justifiably excites the idea of decease. Now 15 of the 19 without addresses received their diplomas of Membership before 1845, the distribution being as follows: 1 in 1825, 1 in 1832, 1 in 1833, 1 in 1836, 2 in 1838, 2 in 1839, 1 in 1840, 2 in 1841, 2 in 1842, 1 in 1843, 1 in 1844, 1 in 1866, 1 in 1879, 1 in 1880, and 1 in 1894. Is it not probable that a considerable proportion of these Members are now non-existent? Eleven of them do not appear in the Medical Register. With a view of displaying at a glance the respective numbers of Fellows by examination and election each year since the institution of the Fellowship among the Fellows still on the books we append Table II.

TABLE II.—*Fellows admitted each Year to the College by Examination and by Election from 1843 to 1894.*

	Totals.	Election.	Examination.
1843	9	9	—
1844	14	11	3
1845	4	—	4
1846	4	—	4
1847	3	—	3
1848	1	—	1
1849	12	—	12
1850	2	—	2
1851	5	—	5
1852	19	14	5
1853	12	6	6
1854	16	12	4
1855	15	12	3
1856	14	10	4
1857	24	14	10
1858	22	18	4
1859	31	23	8
1860	21	9	12
1861	20	11	9
1862	15	6	9
1863	13	3	10
1864	13	3	10
1865	23	5	18
1866	15	5	10
1867	17	1	16
1868	28	1	27
1869	29	3	26
1870	24	9	15
1871	20	2 + 1*	17
1872	17	3	14
1873	19	3	16
1874	9	1	8
1875	25	6	19
1876	29	4	25
1877	22	1	21
1878	27	4	23
1879	15	2	13
1880	23	2 + 1*	20
1881	19	—	19
1882	23	2	21
1883	20	4	16
1884	37	2	35
1885	29	—	29
1886	28	2	26
1887	27	1	26
1888	51	2	49
1889	44	1	43
1890	55	1	54
1891	49	2	47
1892	47	1	46
1893	45	2	43
1894	39	1	38
	1144	236	908

* Ad eundem.

The discrepancy between the totals by election and examination in this chronological list and those in the alphabetical list, wherein the Fellows by election and examination number 237 and 907 respectively, results from the omission from the chronological list for 1844 in the Calendar of the name of a Fellow by election, who appears in the alphabetical list, prefixing to the name of another Fellow in the chronological list for 1870 the letters "ex," which he does not receive in the alphabetical list, and inserting in the chronological list for 1877 a name which has been eliminated from the alphabetical list. It must also be recollected that the figures in the above list are for the ordinary years and not for the collegiate year, which extends from July 1st in one year to June 30th in the next. It will be observed that for the years 1845 to 1851, both inclusive, there are no Fellows by election. This arises from the fact that the Charter for 1843 directed the Council to elect from 250 to 300 Members to be Fellows within three months and gave power to the Council to appoint other Members Fellows within one year, and after that Members and others were to be admitted by examination, whilst in March, 1852, a new Charter was obtained giving power to the Council to appoint Members of fifteen years' standing at the time of the Charter, and afterwards others who being Members at the time should attain to fifteen years' standing, to the Fellowship without examination, and making it lawful for the Council to admit annually to the Fellowship without examination two Members of twenty years' standing. The result has been that from 1852 to 1861, with the exception in the above list of 1853 and 1860, the Fellows by election exceed considerably the

Fellows by examination; that since 1861 the preponderance has been greatly the other way; and that during the last ten years the list contains the names of not more than two Fellows, and in some years only one Fellow, by election in any one year. The decrease in the number of the Members of the College may be more apparent than real. In the accuracy of the list of Members of the College published in the Calendar we do not profess ever to have entertained much faith, and we are accustomed mentally to subtract 3000 or 4000 from the enormous totals derivable from the addition of the names to be found in the lists of Members in the Calendars of the College. Some years ago—in the period immediately preceding the Charter of 1888—when the secretaries of the Association of Members of the College, viz., Mr. Ashton Ellis and Mr. Warwick Steele, issued a circular to the Members of the College, they compared the names in the Calendar with those in the Medical Register, and instead of finding over 17,000 practitioners they could not discover 12,000, thus showing the need for a thorough revision of the list. To this subject we may return at some future time. Meanwhile, accepting the figures, mythological as they may be, as they stand, we find that in 1877 the Members numbered about 15,809; in 1885, 16,723; in 1886, 17,040; in 1887, 17,377; in 1891, 16,771; in 1892, 16,771; in 1893, 17,043, or nearly the same as in 1886; and in 1894, 16,773, or a decrease compared with 1893 of 270. This is difficult to understand except as the result of the weeding process, for the obituary in the report of the Council contains the names of 313 Members only, whilst the number of candidates who passed in surgery for the Membership was 512, or close upon 200 more than would suffice to fill the vacancies created by the losses through death. Only two Members have been struck off the rolls for misconduct during the year. Of the remaining orders of practitioners, the Licentiates in Midwifery are fewer by 36 than in 1893, the Licentiates in Dental Surgery are more numerous by 81, and the holders of the diploma of Public Health by 26. The following table (Table III.) shows at a glance the respective official numbers of the various orders for the last eight collegiate years:—

TABLE III.—*Diplomates admitted to the College from 1887 to 1894.*

	1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.
Fellows	1,116	1,122	1,138	1,153	1,111	1,110	1,122	1,144
Members	17,377	17,027	17,170	17,345	16,622	16,771	17,043	16,733
Licentiates in Midwifery	957	890	866	800	737	704	695	659
Licentiates in Dental Surgery	617	646	676	703	745	793	846	927
Holders of Diploma in Public Health	—	6	29	45	86	126	163	189

The Members are the only order which is a source of substantial profit and support to the College.

2. The various examinations at or in connexion with the College present three aspects of interest: one in regard to the increase or decrease in the number of candidates, another in respect to the proportion of rejections, and a third which bears upon the financial position of the College. This last aspect is dealt with in our article on the Report of the Council for the Collegiate Year 1893–94 to the Fellows and Members;[1] the two former can be most compendiously exhibited in Table IV.

It will be seen that candidates find considerably less difficulty in passing the elementary examinations, especially those in anatomy and physiology, than the later examinations. Chemistry, however, is an exception, and appears to stand in respect to severity before the second examination in anatomy and physiology, and before the final examination in surgery for the Membership. There are rather more rejections at the "final" for the Membership than at the second examination. As to the Fellowship, more candidates are rejected proportionally in anatomy and physiology than at the pass examination. This is in accordance with what might be expected, as the weakest candidates are sifted out at the first examination, which is decidedly severe, considerably more than half the candidates failing to pass, whilst at the "final" more than half succeed.

[1] THE LANCET, Oct. 27th, 1894.

TABLE IV.—*Examinations at the College during 1893 and 1894.*

	Number of candidates and number passed.				Proportion of rejections.
	1893.		1894.		
	Candidates.	Passed.	Candidates.	Passed.	1894.
1st Examination.					
Elementary Anatomy ...	777	626	648	511	1 in 4·73
,, Physiology ...	458	383	149	124	1 in 6 (nearly)
,, Biology	234	169	486	327	1 in 3·05
	692	552	635	451	
Chemistry	743	454	748	416	1 in 2·25
Materia Medica	728	427	492	335	1 in 3·11
Practical Pharmacy	40	28	197	139	1 in 3·4
	768	455	689	474	
2nd Examination.					
Anatomy	815	490	822	504	1 in 2·58
Physiology	945	538	861	503	1 in 2·40
3rd Examination.					
Surgery for Membership of College	937	578	893	512	1 in 2·34
Fellowship.					
1. Anatomy and Physiology	149	55	160	62	1 in 1·63
2. Pass examination	74	48	99	54	1 in 2·2
Dental Surgery	92	57	129	88	1 in 3·1
Public Health.					
Part I.	56	46	46	28	1 in 2·55
Part II.	53	37	48	26	1 in 2·18

SANITATION AT CONSTANTINOPLE.

(FROM A SPECIAL CORRESPONDENT.)

(Continued from p. 1240.)

IF there were no other reasons, the outbreak of cholera which occurred at Constantinople last year should suffice to demonstrate the necessity of adopting a general system for the drainage of that town. I have already pointed out that modern scientific principles have found practical application in the capital of Turkey. The Bacteriological Institute, the disinfecting service, and the Hospital for Turkish Women are organised in such a manner as to place Constantinople on a level with the most progressive cities of Europe, so far as these particular services are concerned; but there is no reason why reform should stop here. The cholera epidemic afforded His Majesty the Sultan an opportunity of setting a fruitful example. The impulse which the Sultan gave to sanitary reform will prove most valuable, if the ardour thus awakened is not allowed to cool down now that the emergency no longer exists. The way the disinfecting service was organised has already been described; but I have to add that to the Sultan belongs the credit not only of providing for the disinfection of the houses of the poor but also of insisting that the poor should be fed. When a case of cholera was reported a policeman was at once placed before the house to prevent any communication between the inhabitants and the outside public. The Sultan then caused the inmates to be amply supplied with food and boiled water. This was done at the Sultan's own expense, the cost being defrayed from his privy purse. The help thus given was a source of great comfort to many poor people. I visited a number of houses where attacks of cholera occurred and spoke to those who lived in them. Many were the expressions of gratitude I heard. This was notably the case at a *han* in the Emin Jami quarter, a tributary to the ill-fated Cassim Pacha district. A *han* is a large building divided into small lodgings, situated round a central court or *patio*. Indeed it is the Turkish for a tenement house. In the *han* in question there were sixteen different rooms or tenements, each inhabited on an average by five persons. This made some eighty people in all. In the central yard there was a leaking cesspit which received all the slops of the house, and the

closet was also in the yard. The air and the soil were befouled. A person who slept on the ground floor very near these abominations was attacked by cholera. Though none of the numerous inhabitants of this tenement house were Turks the Sultan fed them all. These people were for the most part Greeks, and were so poor that many declared they had never before enjoyed such good food or been so free from anxiety as to how the morrow's meal was to be obtained. It is the boast of the authorities at Constantinople that, whenever they were informed in good time, owing to the disinfection of the houses, the isolation of the sick, and the careful and ample feeding of those who lived in infected premises, it very seldom happened that a second case occurred in the same household. On the other hand, where no such notice was given—where, therefore, these measures could not be imposed—the epidemic spread and there were several cases in the same family or the same building. Nevertheless, the sanitary condition of the town is in such a deplorable state that the epidemic spread rapidly and the disease was of a very severe and fatal type. In all, from Aug. 24th, 1893, to April 16th, 1894, there were 2683 cases of cholera, resulting in 1537 deaths. The mortality was, therefore, in excess of 60 per cent. of the cases, and is estimated as equal to 1·5 per 1000 of the population.

As is usually the case, the commencement of the epidemic is enveloped in mystery. Dr. Sarell, one of the oldest—if not the oldest—English physicians at Constantinople, made a post-mortem examination of what is very generally supposed to have been the first victim of cholera. Nevertheless, this case was very far from conclusive. The patient was a woman living with her mother in a house situated on the summit of a hill—a very healthy position; and as, further, they were not poor or in want it would not be in keeping with the general rule that the epidemic should have commenced in this household. The symptoms, however, were of a violent choleriform nature, and the medical attendant sent by the municipality expressed his belief that it was a case of cholera. A police cordon was placed round the house, and not only were the inmates forbidden to leave the premises but the medical men who were in attendance were kept prisoners for four days. It was in this emergency that Dr. Sarell was sent for to draw up an authoritative report, and was allowed to make a post-mortem examination, although to do so is against the Mussulman law. Although many of the characteristic lesions were absent, the examination revealed changes of a suspicious character. As this was the first case, and no other cases of cholera had been reported in the town, Dr. Sarell certified that the death was due to acute enteritis. Thus he escaped being himself placed in quarantine, and released the other medical men. After this orders were given that medical men should not be imprisoned with their patients, but that they be allowed to go free after they had been sprayed with a disinfectant. Three days later cholera broke out at the lunatic asylum of Scutari—that is, on the Asiatic side of Constantinople. The first patient was a negro who came from the palace. It is difficult to account for this case, for the man had had no communication with the outside, but had been in the asylum for nine months. As he came from the palace he was placed in one of the best wards and received every attention. Though he had not been outside the asylum it is just possible that, in the hope of restoring his reason, some holy water from Mecca had been given him. Cholera prevailed at Mecca, and the holy wells there are exposed to great risk of contamination. While the post-mortem examination of this negro was being made fifteen cases of cholera occurred in the asylum, all on the same day. The epidemic lasted forty days, and there were ninety deaths. This represents about 25 per cent. of the inmates. The asylum is notoriously in a bad sanitary condition, a fact which doubtless contributed to the virulence of the epidemic. The medical men in the asylum were kept prisoners for twenty days after the last case, so they endured in all sixty days' incarceration, and were thus exposed to the very greatest danger of themselves contracting the disease. They were subsequently rewarded by honours being conferred upon them for their devotion. The asylum is situated on the heights of Scutari, and has a drain that runs down to the sea. It is well worthy of remark that the majority of cases which occurred at Scutari seemed to be connected with the asylum. The victims were very poor people living in houses situated close to the drain coming from the asylum. Most of these places were overcrowded and far from clean. The epidemic then spread to the barracks, but the soldiers were in the habit of frequenting the *hans* in question. Once the barracks were thoroughly infected the troops were sent to other barracks and subsequently allowed to return to their homes in Asia Minor, where cholera followed in their track. This does not seem to be very consistent with the quarantine policy which is still pursued by some of the authorities at Constantinople.

When I went to Scutari I had an opportunity of discussing these events with some of the physicians practising on that side of the Bosphorus. I was then informed that the Scutari water-supply came from the Alenda Hills. At the intake this is a pure spring water, but the canalisation through which it flows is very old and dilapidated. Not only does it leak in numerous places, but it passes close to the cemetery, where burials still take place. This fact had been ignored or forgotten, and it was only after cholera had prevailed for some time at Scutari that these defects were discovered. Notwithstanding the urgency of the case, it was difficult to provide a new water-supply. The waters had in bygone times been brought to the district by charitably disposed persons, so that the inhabitants of Scutari were accustomed to a gratuitous distribution of water. It was difficult, therefore, to propose the imposition of a water tax; and yet how otherwise were the funds to be obtained for the creation of a new and safer supply? Nevertheless, a company has been formed to provide the whole Asiatic coast with the waters of the Yockso. A dyke has been constructed across a valley, so that the waters of this stream may accumulate, and they are then filtered through sand. Important as is this question of water-supply, still it must be carefully noted that the cholera epidemic in Scutari was more directly connected with bad sanitary conditions, the bad condition of the asylum, than the poor and overcrowded *hans* situated close to the asylum drain, and finally the soldiers who frequented these *hans*. That the sanitary conditions greatly influenced the spread of the epidemic is also shown by the fact, averred over and over again in my presence, that where the houses were thoroughly disinfected no second case occurred. So marked has this effect been that this year, without waiting for cholera to return, the authorities have again disinfected the unwholesome premises where cases occurred last year. The greater part of the houses at Scutari have gardens—that is, plenty of air space around them,—but the closets are mere holes dug in the earth, so that all the liquids filter into the subsoil. There are, however, some few sewers, and the houses near at hand drain into them. This is scarcely an improvement, for the sewers are so badly built that they often burst and overflow. At the junction of three roads I came upon a pool of stagnant water thus formed; though it was only about eight inches deep the gases generated were bubbling to the surface with great activity. Within a yard or two of this foul decomposition bread, cream cheese, and fruits were exposed for sale. The urinals and public latrines at Scutari were also a veritable source of infection. There was no water, and the odour of ammonia was most pronounced. On the other hand, the quaint, rickety, picturesque, and for the most part wooden houses of Scutari are not built close to each other, nor are they lofty. Thus the winds and the rays of the sun can play round them and constantly purify the foulness caused by the inhabitants. Then there are numerous hills whence the rain water rushes down with great force and helps to wash the soil and subsoil.

To return to Constantinople proper—that is, to Stamboul and to Pera—there is yet another explanation given to account for the outbreak of cholera. The epidemic coincided with the return of the pilgrim ship, the *Abdelkader*. This vessel had 400 pilgrims on board. It is owned by Turks and was described as being dirty and badly kept. On the return journey from Mecca the ship had been put in quarantine several times. In all, it had undergone the orthodox forty days of quarantine. This, of course, greatly aggravated the already insanitary and unhealthy condition of the passengers, particularly as they were for the most part very poor. These wretched folks were half famished. Among them there were two Sisters of Charity, who had most imprudently embarked on this ship. When finally they were allowed to land at Constantinople the hardships they had endured were such that they were both very ill and emaciated. One of the Sisters died soon after she came on shore. The other Sister, though very ill, fortunately recovered. Another passenger, a man, was taken to a hospital but died at the entrance. The other pilgrims quickly scattered all over the town, and very soon afterwards cases of cholera occurred among the Constantinople boatmen. It is supposed

that some of these boatmen had obtained work on board the pilgrim ship. Also, some of the first sufferers from cholera were market gardeners, who live in overcrowded little huts and utilise sewage from a neighbouring drain to water their plants. With the exception, therefore, of the doubtful case of the woman upon whose body a post-mortem examination was made by Dr. Sarell, the first cases of cholera were all connected with exceptionally insanitary conditions. This is especially so with regard to the boatmen. Apart from the possibility of their having worked on board the pilgrim ship, the small boats, or *kaiks*, that ply for hire at Constantinople are generally stationed near a sewer outfall; indeed, even at some distance from the sewer outfalls the shores of the Golden Horn are so filthy that the most repulsive odours fill the neighbourhood. Constantinople thus suffers from one of the principal inconveniences of a badly contrived system of drainage, and yet it does not enjoy any of the compensating advantages, for it possesses no system of drainage, good, bad, or indifferent. A great many of the houses do not drain into sewers or even into cesspools. In the garden or in the central yard a pit is dug, and over this a plank is placed. The hole in the centre of the plank constitutes the closet. Beneath there is no brickwork, no masonry. On the contrary, this sort of cesspit is intended to be as porous as possible, so that the filth it receives may promptly escape into the surrounding earth. Thus there arises a wholesale contamination of the subsoil. Other houses communicate with sewers, but this is scarcely an advantage. The house drains are laid as if the principal object was not to facilitate but rather to prevent the drainage of the house. They are made perfectly square, with bricks, stones, and lime, no cement being used; so that while the sewage cannot readily flow through such drains it very easily leaks into the surrounding earth and pollutes the subsoil of the houses. The sewers with which these drains communicate are built in exactly the same way, with the exception that they are larger. Thus the house drains and street sewers are in reality elongated and leaking cesspools. Of course, all the heavier substances are deposited, particularly as there is no system of flushing. Such things as a closet pan and trap are almost unknown. Immediately above the leaking cesspools or the leaking drain is the hole in the floor which constitutes the Turkish closet. There is nothing whatsoever to prevent the odours from below ascending into the court and house. Thus the most insupportable stenches often disgust the visitor who enters one of these houses. In the streets such sewers as exist, being by the very nature of their structure absolutely unsuited for the purpose of draining the town, soon become blocked; they often burst, and then the sewage rises up in the streets and forms a permanent quagmire of dangerous decomposing organic matter. These sewers, needless to say, are worse than useless—they are an absolute and constant menace to the health and lives of the population. That the sewers fail in their purpose was clearly proved during the recent cholera epidemic. Orders were given to clear the mouths or outfalls of the sewers, whence the most repulsive stenches emanated. It was then found that many of these sewer mouths were completely choked up. Not only does the sewage fail to flow down the square-shaped sewers, but by stagnating and forming deposits of heavy matter it impedes the evacuation of rain water. Then, as already stated, and more especially when there is a heavy rainfall, a sewer bursts. As the authorities are none too active in repairing such damage, quagmires of sewage are formed in the streets. These remain for an indefinite period, and besides blocking the roads add to the danger of infection. Similar ill-constructed sewers exist at Therapia, a village half-way up the Bosphorus, where most of the ambassadors have their country or summer residences. The principal sewer is in a valley, and is consequently subjected to great pressure in rainy weather. In 1865 this sewer burst. Attempts were made to repair it, and then cholera, which existed in the neighbourhood but had not yet reached Therapia, broke out there, the mortality from the disease being exceptionally high. Indeed, it is very generally held that the experience acquired at Therapia is an additional proof that sewers built in this manner do more harm than good.

(To be continued.)

THE annual ball in aid of the funds of the Royal Free Hospital, Gray's-inn-road, will take place at the Holborn Town Hall, on Wednesday, Dec. 12th, under titled and distinguished patronage.

REPORT OF THE HEALTH OFFICER OF CALCUTTA FOR 1893.

WE are always glad to call attention to these publications, for they commonly contain much interesting matter clearly and pertinently set forth by Dr. Simpson, the well-known health officer of Calcutta. The present report is for 1893, and records the vital statistics and health of Calcutta, together with the work done in the medical branches of the Health Department for that year, and in its branches for town cleansing and sanitary work from April, 1893, to March, 1894.

Following paragraphs on the meteorology and price of food, the figures and results of the statistical records of births and deaths during 1893 are given. The number of births during that year was higher than that recorded during the previous four years. The registered birth-rate gives an annual ratio of 19·7 per 1000, as compared with 18·6 of the previous year. The increase is stated to be mainly due to an improvement in the birth-rate of suburban Calcutta, though the town area also showed a decided improvement in this respect over the previous three years.

The number of deaths in 1893 was lower than that of the previous three years, but higher than that of 1889. The decline in the death-rate, which was 29·5 per 1000 in 1893, was mainly due to a low mortality from cholera and small-pox. In urban Calcutta the number of deaths from cholera during the year was 596, the lowest on record; but the mortality from fevers attained a higher figure than any registered during the previous ten years. In suburban Calcutta the death-rate had increased, the increase being attributable to the mortality from fevers and other causes. The deaths from cholera numbered only 273, the lowest since the amalgamation, and the deaths from small-pox were much below the average of the previous four years.

It will be remembered that Dr. Simpson's report for the preceding year gave a summary history of sanitary progress in Calcutta for a long time past, and afforded some very interesting facts and figures regarding cholera prevalence in the city and suburbs—more especially the suburban districts—of Calcutta, which showed very conclusively the improvement that had been effected in this respect by the introduction of the new water in the suburban area. It is satisfactory to find that this diminished prevalence of cholera in Calcutta and its suburbs has been maintained during 1893. The sanitary improvements which have been effected of late years—more especially under the wise and energetic action and representations of the health officer—are very satisfactory. We wish Dr. Simpson every success in his efforts to get something done towards remedying the unsatisfactory condition of the drainage of urban Calcutta and its injurious effect on the public health. No doubt the prevalence and mortality of fever in both Calcutta and its suburban districts are greatly attributable to want of adequate and proper systems of drainage. We are reluctantly compelled to pass over other sections of the report, such as the official note on leprosy addressed by the health officer to the Secretary to the Bengal Government, and other matters, but we have said enough to show that good public health work is being carried out.

THE STANLEY SHOW.

FRESH air and change of scene are two of the main factors in the conservation of health, and a ready means of obtaining these can be found in cycling, which, if indulged in with moderation, will rarely prove harmful. We say "with moderation" advisedly, for there seems to be a fascination attaching to this form of locomotion which in many cases when used as a means of pleasure leads its devotees to indulge in the exercise to excess and turn a healthful form of recreation into a decided means of harm. The long distance and sleepless rides to which we have on more than one occasion alluded ought certainly to be discouraged; but there is a danger to health which the ordinary

rider is apt to overlook—we refer to the worry consequent on the threading of the intricate vehicular maze of the London streets. After the day's work is done, however, a short ride on a cycle to any of the country districts just beyond the outskirts of London will afford a means of regaining the energy spent during the day, and tend to promote a degree of health that otherwise it would be difficult to obtain. To those interested in these matters the exhibition of cycles, opened at the Agricultural Hall, Islington, on Nov. 23rd, will prove worthy of a visit. Since its inception eighteen years ago the Stanley Show, inaugurated by the cycle club of that name, has continued to grow in variety and scope, and this, the eighteenth exhibition, shows a decided advance over the shows of previous years. The actual number of exhibitors reaches the remarkable total of 368, and 1300 machines are on exhibition. The cycle perhaps owes its origin to the genius of Baron Drais of Germany, who in 1817 invented the draisine, known in England as the hobby-horse, and its evolution through the clumsy velocipede to the present graceful and light-running machine has been rapid during the last decade or two.

A striking novelty of the exhibition, and one of the most attractive features, is the stand occupied by the Bamboo Cycle Company of Wolverhampton. Twenty-five cycles are exhibited, some made entirely of wood with the exception of the metal bands surrounding the joints, and others composed partly of bamboo and partly of aluminium. Of course, nothing but the test of time can prove the expediency of using bamboo in the construction of these machines; but a machine—the first made—which has been ridden for 1000 miles does not show any very great signs of wear. Their weights vary from 14 lb. to 25 lb., and they are guaranteed to carry a weight of 16 st. The advantages claimed are lightness and lessened vibration. The exhibition is not wholly devoted to cycles, and carriages, cabs, ambulances, sewing machines, and photographic appliances are included among the exhibits.

One of the things in connexion with cycling which is constantly exercising the ingenuity of inventors is the construction of a saddle which will prevent perineal pressure and be efficient as regards ventilation. In this connexion we may mention Lycett's air-seat, which has a top blocked to an unalterable perfect shape, but contains an air-pad, and is ventilated in such a way as to prevent heat; Messrs. Guthrie and Hall's patent pneumatic saddle, designed with a view of preventing side-slipping and vibration, with efficient ventilation; and the Simmonite Automatic Saddle Company's patent saddle, which, by a simple mechanical contrivance, always maintains a horizontal position in ascending or descending hills.

The improvements that have taken place in the construction of pneumatic tyres have led to their adoption to all kinds of vehicles, and hansoms, broughams, gigs, carts, &c., are now fitted with them. Among the firms exhibiting these tyres are Messrs. H. H. Mulliner, Birmingham; the Palmer Tyre Company, Birmingham; the North British Rubber Company, Edinburgh; the Vehicle Pneumatic Tyre Company, Manchester; and the Compagnie Française des Pneumatiques Dunlop. The Preston-Davies Tyre and Valve Company exhibit a novelty in the shape of a hansom cab fitted with their patent tyres. The locomotive power is obtained from a bicycle attachment at the front and back of the cab worked by two men.

Fear of puncture has no doubt prevented the use of pneumatic tyres to invalid carriages and ambulances; but this liability to accident has been provided against by a tyre exhibited by the W. and A. Safe Tyre Company, for which the combined advantages of both the pneumatic and cushion tyres are claimed, and a power of gripping or biting the road at any angle. An ambulance fitted with these tyres, and made by Mr. Alfred Carter, is exhibited by this firm, and has been adopted by St. Bartholomew's Hospital.

Messrs. Crocker, Sons, and Company (agents) exhibit a novel invention called "Selvyt," a substitute for chamois leather. The inventor claims that this material is superior to wash-leather for polishing purposes, that it will outlast chamois leather, and that it will wash and still remain soft and pliant.

The Brunsviga calculating machine, which has attracted considerable attention among mathematicians, is also on view here.

The exhibition, which the Board of Trade have declared to be international, will remain open till Saturday (to-day), Dec. 1st.

THE PAY SYSTEM AT THE GREAT NORTHERN CENTRAL HOSPITAL.

ON Monday last, at the Athenæum, Camden-road, London, N., a meeting of the general practitioners of North London was held to consider the reply which the staff of the Great Northern Central Hospital had made to the recent protest against the introduction of the pay system into the hospital.

Mr. GODFREY, who was unanimously elected chairman of the meeting, briefly stated the object for which they had met—namely, to decide as to the course the general practitioners should now adopt. He hoped the meeting would deal with the matter in the same kind and courteous manner that had been shown to them by the medical staff of the Great Northern Central Hospital.

Dr. GEORGE WIGHT gave a short history of the movement, and read from THE LANCET [of Oct. 27th] the report of the proceedings at the deputation which waited upon the general committee of the Great Northern Central Hospital on Oct. 19th.

Dr. CRABB then proposed the following resolution: "That we, general practitioners of North London, having received a reply from the chairman of the general committee of the Great Northern Hospital and also a reply from the staff in answer to our protest regarding the establishment of pay wards in the hospital, do hereby express our extreme dissatisfaction with the reply." The reply of the staff was printed in THE LANCET of Nov. 24th. On behalf of the protesting committee Dr. Crabb said the first paragraph called for no reply, but he would express the hope that the courtesy which the staff had acknowledged would still continue to characterise the petitioners' attitude. The medical practitioners who supported the scheme in 1883 were the merest handful of the profession, upon whose behalf they had in no sense a mandate to speak. By their own admission the staff looked upon the new innovation as hazardous, and the speaker contended that no money at all should be taken in a charitable hospital. With regard to the pay wards being intended for patients a little above the poorest class, he pointed out that this class was just the one for which free hospitals were intended, the very paupers being provided for by the State. The new conditions regulating the admission of patients were totally inadequate, and the investigation of the merits of these patients did not come within the scope of the staff. It was said that the system differed entirely from any other that had hitherto been tried. Therein lay its condemnation. The honorary medical staff had no right to undertake gratuitously the charge of other men's patients until the practitioners had been consulted. The patients treated were those who were perfectly able to pay fees that most practitioners would be perfectly willing to accept. He regretted to find no intention on the part of the staff to reconsider their relation to the scheme. The system to which the staff had lent their aid must tend powerfully to alienate the sympathies of the profession.

Dr. P. W. RATTRAY thought that the reply of Dr. Murdoch (Chairman of the General Committee of the Great Northern Central Hospital) was extremely inadequate. If nothing better than the legality of the movement could be put forward in answer to the objections made against the pay wards the committee were in a very sorry plight. Both in the reply of the general committee, as reported in THE LANCET, and in the letter from the staff the pecuniary aspect of the question had been touched upon, but it remained for the staff to prove that the minimum amount necessary to support a single bed was two guineas. Dr. Rattray here quoted some figures from the hospital report with the object of showing that two guineas were certainly not the minimum amount required to keep one bed going in the hospital.

The resolution proposed by Dr. Crabb was then carried unanimously.

Mr. GREAVES moved: "That this meeting of general practitioners of North London does hereby resolve that it abstains from calling in consultation any member of the medical or surgical staff connected with a charitable hospital in which pay wards exist." He said the general practitioner was gradually being squeezed out of existence by the quack, the bonesetter, prescribing druggists, the unqualified midwife, and the nurse. The notification of infectious diseases had done harm to the general practitioner, and there was the old question of hospital abuse. The latest departure was the

institution of pay wards, and he considered it scandalous that the medical staff of what was in the first instance intended to be a charity should take part in what was to all intents and purposes a commercial enterprise. What his resolution really meant was that each section of the profession and those indirectly connected with it should adhere to their proper sphere of work.

Mr. NEWTON PARKER seconded the motion, believing that boycotting was the only weapon they could employ. The medical staff had violated a fundamental rule of medical ethics, which says "Thou shalt not filch one another's patients." It only needed an extension of the pay-ward system to stamp out the medical practitioner.

Mr. HOWELL supported the resolution.

Dr. GLOVER said that stress had been laid by some of the speakers on unanimity of feeling, but he did not think the introduction of such a resolution as that now under discussion would be likely to add to the unanimity of the meeting. The first resolution was reasonable and justifiable, and would carry great weight with the staff and governors of the hospital, and also with the public; but the second resolution introduced a very questionable principle, about which there would be a great diversity of opinion outside. To boycot a staff because they recognised and supported pay wards was a very undignified proceeding.

Dr. Hugh Woods, Dr. Richards, Dr. Sabine Tait, Dr. Bulger, Dr. Marshall, Dr. Bailey, Dr. Beaton, Mr. Howell, Dr. Redfern, Dr. Wight, and Dr. Glover continued the discussion, which was adjourned till Thursday, Dec. 6th.

Dr. BEATON gave notice that at the next meeting he would propose a resolution having for its object the formation of a society composed of the medical practitioners of North London.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF INSPECTORS OF THE MEDICAL DEPARTMENT OF THE LOCAL GOVERNMENT BOARD.

Diphtheria at Hythe and Bramshaw, by Dr. TIMBRELL BULSTRODE.—These two villages both lie in the New Forest rural sanitary district, and they are dealt with separately. In the first two months of the present year there was a considerable prevalence of diphtheria in Hythe, over twenty cases being notified, and it is evident that, apart from recognised attacks, there was a somewhat wide prevalence of some form of sore-throat, such as that with which diphtheria is so often allied. Dr. Bulstrode traces the history of the occurrence as far back as is possible; but, as in so many similar prevalences, the first attacks were involved in some obscurity. The history of diphtheria is given in family groups, and it is shown how largely personal infection must have come into play in spreading the disease. A concert in the middle of January probably served to give a fresh stimulus to the spread of the disease by contagion, and later the attendances at school operated in much the same way. In this manner aggregation of people suffering either from unknown attacks of sore-throat or from attacks of doubtful quality with hitherto healthy people, including children, was the special means of distributing this infection. The sanitary administration of the district could do little or nothing to prevent it; there were no means of isolation or provision for disinfection, and in their absence the infection continued to spread. In other ways also, and notably as regards water-supply, Hythe is in a backward state; but in this special outbreak the water and milk supplies do not appear to have had any connexion with the diffusion of the malady. The circumstances affecting the village of Bramshaw do not materially differ from those relating to Hythe. In both places sanitary administration is lax, and in both there was diphtheria. But though the diphtheria occurrences coincided in point of time, no connexion was discovered between them such as would show that the disease had spread from one to the other. Infective sore-throat was prevalent before any known diphtheria was recognised, and in the Bramshaw outbreak aggregation in the girls' school led to the spread of the disease. Whilst questions relating to the origin of diphtheria remain undiscovered in this inquiry, the report gives evidence of careful and skilful investigation.

DIPHTHERIA PREVENTION IN VILLAGE COMMUNITIES.

Dr. J. A. Turner, medical officer of health of the combined sanitary districts of Leicestershire and Rutland, whose able account of the antitoxin treatment of diphtheria as practised in Paris we have recently published, having diphtheria to cope with in the two parishes of Barwell and Earl-Shilton in the Hinckley Union, adopted the admirable plan of first investigating the circumstances of the outbreaks and of then calling meetings in the respective villages, at which the probable origin and causes of the mischief were explained, as also the means necessary to prevent its further spread. Much the same applies to an occurrence of scarlet fever. In Earl-Shilton, for example, 48 cases of diphtheria, with a fatality of 20 cases, and 24 cases of scarlet fever were notified this year up to Sept. 11th. In Barwell there had been in the same period 68 cases and 15 deaths from diphtheria and a few isolated cases of scarlet fever. A summary report gives an account of the matters brought forward at the meetings, and it sets forth the several directions issued. These latter are embodied in a series of most useful memoranda that may well serve as guides to other authorities under similar circumstances. It would appear that diphtheria is somewhat widely spread in Dr. Turner's districts. Between Jan. 1st and Oct. 20th of this year there have been 356 notified attacks, with 82 deaths. The course adopted by Dr. Turner in the two villages in question, and the action based on his series of recommendations as to isolation, &c., which concern the sanitary authority of the Hinckley Union, seem to be steps well adapted to prevent the present extension and to arrest future ones at an early stage of their occurrence.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns 6587 births and 3468 deaths were registered during the week ending Nov. 24th. The annual rate of mortality in these towns, which had been 16·9 and 17·1 per 1000 in the preceding two weeks, further rose last week to 17·3. In London the rate was 15·9 per 1000, while it averaged 18·3 in the thirty-two provincial towns. The lowest rates in these towns were 11·9 in Plymouth, 12·6 in Nottingham, 13·7 in Derby, 14·3 in Birkenhead, and 15·3 in Sheffield; the highest rates were 21·1 in Leeds and in Liverpool, 21·8 in Gateshead, 22·7 in Norwich, and 24·9 in Sunderland. The 3468 deaths included 354 which were referred to the principal zymotic diseases, against 365 and 375 in the preceding two weeks; of these, 109 resulted from measles, 75 from diphtheria, 57 from "fever" (principally enteric), 38 from diarrhœa, 37 from whooping-cough, 34 from scarlet fever, and 6 from small-pox. No fatal case of any of these diseases occurred last week in Cardiff or in Huddersfield; in the other towns they caused the lowest death-rates in Blackburn, Norwich, and Swansea, and the highest rates in Portsmouth, Sunderland, Leeds, Newcastle-on-Tyne, and Gateshead. The greatest mortality from measles occurred in Portsmouth, Derby, Leeds, Sunderland, Gateshead, and Newcastle-on-Tyne; from whooping-cough in Birkenhead and Newcastle-on-Tyne; and from "fever" in Liverpool. The mortality from scarlet fever showed no marked excess in any of the large towns. The 75 deaths from diphtheria included 48 in London, 7 in West Ham, 3 in Birmingham, and 3 in Manchester. Five fatal cases of small-pox were registered in Birmingham and 1 in Liverpool, but not one in London or in any other of the thirty-three towns. There were 33 cases of small-pox under treatment in the Metropolitan Asylum Hospitals and in the Highgate Small-pox Hospital on Saturday last, the 24th inst., against 48, 51, and 42 at the end of the preceding three weeks; 2 new cases were admitted during the week, against 8, 12, and 3 in the preceding three weeks. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 2198, against 2240, 2258, and 2254 on the preceding three Saturdays; 223 new cases were admitted during the week, against 223 and 215 in the

preceding two weeks. The deaths referred to diseases of the respiratory organs in London, which had been 245 in each of the preceding two weeks, rose to 261 last week, but were 195 below the corrected average. The causes of 62, or 1·8 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Cardiff, Nottingham, Bradford, Newcastle-on-Tyne, and in twelve other smaller towns; the largest proportions of uncertified deaths were registered in West Ham, Birmingham, Leicester, Blackburn, and Hull.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 20·3 per 1000 in each of the preceding two weeks, rose to 21·3 during the week ending Nov. 24th, and exceeded by 4·0 per 1000 the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 13·7 in Leith and 14·8 in Paisley, to 24·1 in Perth and 24·2 in Greenock. The 606 deaths in these towns included 21 which were referred to diarrhœa, 19 to measles, 13 to diphtheria, 10 to whooping-cough, 7 to "fever," 6 to scarlet fever, and 4 to small-pox. In all, 80 deaths resulted from these principal zymotic diseases, against 84 and 60 in the preceding two weeks. These 80 deaths were equal to an annual rate of 2·3 per 1000, which was 1·0 above the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of measles, which had been 16 and 12 in the preceding two weeks, rose again to 19 last week, of which 17 occurred in Glasgow. The deaths referred to diphtheria, which had been 14, 13, and 12 in the preceding three weeks, were 13 last week, and included 7 in Glasgow, 2 in Edinburgh, and 2 in Dundee. The 10 fatal cases of whooping-cough showed a slight further decline from the numbers recorded in recent weeks, and included 8 in Glasgow. The deaths referred to different forms of "fever," which had been 10 and 3 in the preceding two weeks, rose again to 7 last week, of which 5 occurred in Glasgow and 2 in Edinburgh. The 6 fatal cases of scarlet fever were below those recorded in any recent week, and included 3 in Glasgow. The 4 deaths from small-pox were all registered in Edinburgh. The deaths referred to diseases of the respiratory organs in these towns, which had been 166 and 155 in the preceding two weeks, further declined to 142 last week, and were 102 below the number in the corresponding period of last year. The causes of 31, or 5 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 22·8 and 23·3 per 1000 in the preceding two weeks, further rose to 24·3 during the week ending Nov. 24th. During the past eight weeks of the current quarter the death-rate in the city has averaged 22·5 per 1000, against 15·9 in London and 19·8 in Edinburgh. The 163 deaths registered in Dublin during the week under notice showed an increase of 7 upon the number in the previous week, and included 14 which were referred to the principal zymotic diseases, against 12 and 10 in the preceding two weeks; of these, 5 resulted from "fever," 4 from diarrhœa, 3 from whooping-cough, 1 from small-pox, 1 from scarlet fever, and not one either from measles or diphtheria. These 14 deaths were equal to an annual rate of 2·1 per 1000, the zymotic death-rate during the same period being 1·6 in London and 2·5 in Edinburgh. The deaths referred to different forms of "fever," which had been 2 and 3 in the preceding two weeks, further rose to 5 last week. The 4 fatal cases of diarrhœa exceeded the numbers recorded in recent weeks. The deaths from whooping-cough, which had been 3 and 1 in the preceding two weeks, rose again to 3 last week. One fatal case of small-pox was recorded, against 4 and 3 in the preceding two weeks. The 163 deaths in Dublin last week included 28 of infants under one year of age and 36 of persons aged upwards of sixty years; the deaths of infants exceeded by 6 the number in the preceding week, while those of elderly persons showed a slight decline. Seven inquest cases and 7 deaths from violence were registered; and 63, or more than one-third, of the deaths occurred in public institutions. The causes of 9, or nearly 6 per cent., of the deaths in the city last week were not certified.

THE SERVICES.

MOVEMENTS OF THE MEDICAL STAFF.

THE following officers have embarked for India in the *Dilwarra*:—Surgeon-Lieutenant-Colonel Trevor, Surgeon-Major Adams, and Surgeon-Captains Newland, Buchanan, and Barefoot. Surgeon-Major Ford has embarked for Bermuda. Surgeon-Lieutenant-Colonel Slaughter is posted, on return from foreign service, to Portsmouth: Surgeon-Lieutenant-Colonel Leake, to Woolwich; Surgeon-Captain Wright, to Aldershot; Surgeon-Captain Cotrell, to Woolwich; and Surgeon-Captain Watson, to Ireland.

ARMY MEDICAL STAFF.

Surgeon-Lieutenant-Colonel H. Stannard is promoted to the rank of Brigade-Surgeon-Lieutenant-Colonel.

INDIA AND THE INDIAN MEDICAL SERVICES.

Surgeon-Lieutenant-Colonel William Henry Gregg to be Brigade-Surgeon-Lieutenant-Colonel. The services of Surgeon-Captain F. H. Burton-Brown, M.B., I.M.S. (Bengal), are placed at the disposal of the Military department. Surgeon-Captain F. O'Kinealy, Officiating Resident Surgeon, Medical College Hospital, and Surgeon-Captain C. E. Sunder, Officiating Resident Surgeon, Medical College Hospital, are confirmed in their appointments. Surgeon-Lieutenant A. J. Chambers, A.M.S., having reported his arrival in India, has been attached to the Station Hospital, Poona, for duty. The following postings of medical officers have been ordered:—Surgeon-Lieutenant V. B. Bennett, to general duty, Mhow district; and Surgeon-Lieutenants H. M. Moore and D. C. Johnston, to general duty, Poona district.

NAVAL MEDICAL SERVICES.

Deputy-Inspector-General of Hospitals and Fleets Henry Frederick Norbury, M.D., C.B., has been promoted to the rank of Inspector-General of Hospitals and Fleets in Her Majesty's Fleet.

VOLUNTEER CORPS.

Artillery: 1st London (City of London): Surgeon-Lieutenant J. W. T. Gilbert to be Surgeon-Captain. *Engineer (Fortress and Railway Forces: Royal Engineers):* 2nd Gloucestershire (the Bristol): Surgeon-Captain G. A. Gloag resigns his commission. *Rifle:* 1st Volunteer Battalion, the Gloucestershire Regiment: Surgeon-Lieutenant J. P. Bush resigns his commission. 5th (Perthshire Highland) Volunteer Battalion, the Black Watch (Royal Highlanders): Captain G. W. Dickson is appointed Surgeon-Lieutenant. 4th Volunteer Battalion, the Essex Regiment: Surgeon-Captain L. Thelwall resigns his commission. 1st Dumbartonshire: William Little, M.D., to be Surgeon-Lieutenant.

FRANCE AND MADAGASCAR.

In the debates in the French Chamber about the expeditionary force to Madagascar it has been fully recognised that the difficulty to be encountered will not arise so much from the resistance of the Hovas as from the nature of the country, its distance from France, the difficulties of transport and commissariat, and the amount of sickness and inefficiency that may be expected to arise in the French force necessitating the presence of a large and well-organised medical service and the establishment of numerous hospitals. M. Felix Faure, the Minister of Marine, declared that all necessary arrangements for the health of the troops would be taken. According to the Minister of War France has at the present time 570,000 men under the colours, which is the largest number that she has ever had, and for the Madagascar expedition none but volunteers who have served at least eighteen months would be accepted. As regards the composition of the expeditionary column, he added that it was indispensable to send a certain number of men belonging to the active army of France: a soldier must go where he was ordered. A colonial army, if it existed, was for garrisoning colonies and not for expeditions, and it would demoralise the army to make it remain at home while native colonial and Algerian troops were fighting.

THE FIGHT ON THE AFGHAN FRONTIER.

The details of the late attack on Colonel Turner's force at Wano by the insurgent tribesmen show that it was a very sharp affair for a time, and might even have entailed serious consequences on the British force. Several bodies of Waziris had assembled under cover of the hills and, taking advantage of the darkness, stealthily approached the camp by several routes, and then joined together

and rushed the camp. Fortunately the force at Wano had obtained some information of a possible movement on the part of the Waziris and were not altogether unprepared for their attack, but the Waziris, nevertheless, managed, in their first fierce onset, to dash into the camp and penetrate into the field hospital and commissariat cavalry lines, and it was at the former place that Surgeon-Major Haig was wounded, receiving a sword cut in the arm. The brunt of the fighting fell upon the Goorkhas, who displayed all the customary courage and tenacity characteristic of their race.

DEATHS IN THE SERVICES.

Deputy-Surgeon-General E. H. Roberts, who retired in 1838, served in the Crimea, took part in the expedition of Kertch, and was present at the siege and fall of Sebastopol. He also served in the Indian Mutiny campaign of 1857–58, and was at the siege and capture of Lucknow. Inspector-General Richard Denton Mason, C.B. (retired), at Ipswich. He served on the *Albion* during the siege of Sebastopol, and in the attack on the forts was wounded by the bursting of a shell in the cockpit. He was also present in the operations against Canton. The deceased gentleman was a Knight of the Legion of Honour.

Surgeon-Lieutenant-Colonel G. Mitchinson, on retiring from the Medical Staff of the 3rd Lincolnshire Regiment after forty years' service, has received from the past and present officers of the regiment a most gratifying mark of their esteem. They have presented him with a handsome silver cup of considerable height, bearing an appropriate inscription.

The hired transport *Britannia* sailed from Bombay on Nov. 8th with 108 invalids for Netley.

Correspondence.

"Audi alteram partem."

A REPLY TO THE "MOSCOW GAZETTE."

To the Editors of THE LANCET.

SIRS,—The information on the illness of the deceased Emperor[1] contains considerable inaccuracies. The January influenza undoubtedly weakened the Emperor's health, but the latter was already far from perfect. The Emperor was greatly weakened from the excessive bleeding at the nose in August, 1893, and during all the ensuing autumn suffered from feverish bronchitis, now diminishing now increasing. The January influenza was already the third attack of this disease. I will not insist upon the fact that the constant increased occupations and the resultant want of sleep gradually undermined the Emperor's health. During the course of the January influenza, when I was first called to treat His Majesty, it is unnecessary to say that careful chemical and microscopical examinations were made daily. During the first three or four days an insignificant quantity of albumen was noticed in the kidney secretion, an ordinary phenomenon in acute feverish diseases, but there were no so-called cylinders (cylinders and albumen are the first symptoms of inflammation of the kidneys—nephritis). After this the albumen disappeared, and till my departure, for more than a week, did not reappear any more than the cylinders. Besides the persons who signed the bulletins then—i.e., myself, Court Surgeon H. J. Hirsch, and Dr. N. A. Veliaminov—the facts mentioned were noticed by Drs. A. A. Bieliaev and A. S. Trubachov, who were entrusted with the investigations. The heart was normal, and its action, as appears from the bulletins of that date, was satisfactory all the time.

From my departure at the end of January to Aug. 9th, when I was again summoned, the Emperor was not under my professional observation. During all this period I only once had the happiness to see the Emperor—on June 2nd—when he deigned to grant me an hour's audience to hear the report of the illness of His Imperial Highness the Grand Duke George Alexandrovich. At the end of the audience the Emperor, who was always worried by a medical examination, gave me a few minutes' time to inform myself of the state of his health and to examine the respiration. The result was as follows: appetite good; digestion not quite regular (on retiring to rest soon after the evening meal of curds and biscuits the Emperor felt oppression in the chest, quickly passing away; I indicated the necessary measures to be taken, and this symptom, as I learnt later, in August, disappeared); lungs healthy; heart normal, and its action satisfactory; slight coughing, depending only on habitual catarrh of pharynx usual from smoking; the Emperor had become thinner (compared with what he was when in Moscow in the spring of 1893) only as far as was desirable; sleep good; no headache, and fresh; stature upright, movements quick, voice and speech firm. Having again, as in January, directed the Emperor's attention to the extreme necessity of not tiring himself with work, of giving himself more time for sleep, and avoiding catching cold, I had the happiness, by command of the Empress, who was still staying in Abastuman, to write to Her Majesty on what has been set forth above.

In the beginning of August I was summoned to Peterhof (on the 9th of that month) and at the same time received a letter from Court-Surgeon Hirsch informing me that the Emperor's health had become much worse, and that in July the presence of albumen was noticed. Having arrived at Peterhof I for the first time had the opportunity during several days of carrying out complete observations and making the necessary examinations with the help of Professor N. F. Golubov, who accompanied me. Albumen and cylinders were then constantly present in the urine—i.e., the symptoms of nephritis; there was slight enlargement of the left ventricle of the heart, with a weakish and frequent pulse—symptoms of consequent affection of the heart; and uræmic phenomena—depending on the insufficient secretion of the kidneys and their insufficient purification of the blood; there were insomnia, constant bad taste, not seldom nausea. In accordance with these data a diagnosis was made, to which subsequently Professor Leyden agreed, and which was completely confirmed by the necropsy. I will add that the latter proved also the comparatively short existence of the disease—"the capsule of the kidney is easily separated" and "the inconsiderable density of the kidneys." When chronic interstitial nephritis has existed long the capsule of the kidney is separated with difficulty, tears on separation, and the density of the kidneys increases, the kidneys become harder.

In the written conclusion as to the disease presented by Court-Surgeon Hirsch and myself to the Emperor, the disease of the kidneys was indicated and named, the consequent participation of the heart was indicated, and the fatal significance of the disease was not concealed, although, for obvious reasons, toned down; thus it was said that the disease "sometimes passes away, but extremely seldom" (although there was already in reality no hope of recovery); it was said that improvement in health and prolongation of life were possible, but only with the strictest observance of certain conditions and a certain *régime* of life (practically the same as was required in the conclusion presented to the Emperor after his January illness by Court-Surgeon Hirsch and myself). In the contrary case were indicated as inevitable "extremely dangerous consequences," mainly further development of uræmic phenomena and dangerous enfeeblement of the heart's action (and consequently disturbance of the circulation of the blood and development of œdema).

The conditions and mode of life of the Emperor, on the other hand, since his January illness were the same as before—the direct opposite of what his health required and of what his physicians insisted upon—namely, continual fatigue from mental occupations and very frequently bodily exertion, continually insufficient sleep, and frequent exposure to all weathers; but a fatal influence on the development and rapid course of the disease was exerted by the extremely cold and wet summer, and still more by the damp and cold lower storey of the Emperor's apartment at Alexandria (near Peterhof), especially the bedroom situated on that storey, the coldest of all and excessively damp. The Emperor could not bear heat and always sought coolness. It was only in August that I was able to examine this apartment (the audience of June 2nd took place in the best room of the upper storey and of the whole apartment—the study—whither the Emperor consented, in August, to transfer his bedroom), where the Emperor passed the time from the end of May to Aug. 18th.

Unfortunately, the conditions and mode of life of the Emperor subsequently changed but little for the better: his departure from Alexandria for Bieloviezh could not take place before Aug. 18th, the weather at Bieloviezh being raw and cold, and at Spala, although dry, with the exception of a few days, it was fresh and even cold. Both at Bieloviezh

[1] Letter from Livadia, Moscow Gazette, Nov. 1st.

and at Spala the Emperor, being accustomed to air and exercise, involuntarily forgetting the physicians' advice, allowed himself to go shooting for a long time together, becoming fatigued and remaining exposed sometimes to damp or, even if dry, yet chilly and even cold air.

The treatment was directed mainly against uræmic attacks and against the enfeebled action of the heart: later, when with the development of œdema the uræmic phenomena began to subside (the bad taste diminished, a slight appetite appeared, and sleep became somewhat better), the treatment was directed exclusively to the regulation and strengthening of the heart's action. But all remedies—the most effective were of course employed—acted feebly and not for long. The rumours circulated that the Emperor during his last illness was bled, and that during the January influenza Spanish flies were applied, which caused the irritation of the kidneys, and thereby aided the development of nephritis, are false; neither bloodletting nor, indeed, any removal of blood whatever was practised (on the contrary, during the last illness at one time iron was given), nor were flies prescribed, either in the January or in the last illness.

I am, Sirs, yours faithfully,
Prof. H. ZACHARIN.

"A CASE OF CARDIAC SYNCOPE UNDER CHLOROFORM; RECOVERY."

To the Editors of THE LANCET.

SIRS,—In THE LANCET of Nov. 24th Mr. Ballard makes the statement that "tricuspid regurgitation, ... due as it is to mental causes, is obviously impossible in experiments on the lower animals." This is surely a mistake. There can be no doubt that animals, even the lower, have a mental atmosphere through which emotion penetrates. I have seen a mouse die from ruptured cardiac valves while safe in a trap from fear of a cat. I have felt and auscultated the violent beating of the heart of a dog in the presence of the prospect of a punishment for an offence against decency, and it is a child's lesson to learn of the inhibition of will power in a prey in the presence of the preyer.

I am, Sirs, yours truly,
Nov. 26th, 1894. E. CLOETE SMITH.

"THE BARIUM WATERS OF LLANGAMMARCH AND THE THERAPEUTICS OF BARIUM SALTS."

To the Editors of THE LANCET.

SIRS,—I have read with more than ordinary interest and satisfaction the important article which appears in THE LANCET of Nov. 24th on the subject of the Mineral Water of Llangammarch, and I am led to hope that the time has arrived when the attention of the medical profession will be more generally directed, not only to barium as a therapeutic agent, but also to the natural source which, as far as we know, is unique in this country, and, indeed, in Europe, as yielding that agent in proportions suitable for effectual and safe internal administration.

The Llangammarch waters were first brought under my notice some twelve years ago in connexion with a young patient who was the subject of bubonic swelling of the cervical glands of both sides, consequent on septicæmia accompanied by sore-throat. The father, who was intimately associated with the part of Wales in which they are found, begged that his son might be allowed to have the benefit of a course. After taking them for three weeks the lad returned in such a state of local and general restoration as caused me great surprise. Later, I had the opportunity of observing the effects of these waters on a young lady affected with extensive, chronic, and probably tuberculous enlargement of the same glands. A course extending over some three weeks was followed by no less striking results, and the benefit seemed to last for some two years. In the meantime reports, some based on popular and others on medical authority, reached me from time to time, which tended to show that these waters are capable of exercising powerful therapeutic influences in cases of chronic heart disease. I have recently taken the trouble to ascertain on the spot the nature of the observations and the facts on which this reputation has been built up, and the evidence which has been laid before me by inhabitants of the neighbourhood, and more especially by Mr. Hugh Bennett of Builth, leave no doubt in my mind that it rests on a substantial basis.

In the course of the present year the wells and the immediately surrounding property passed into the hands of a man who is prepared to promote their reputation and prosperity by means of a judicious and intelligent outlay of capital; and among other improvements he has erected a small but excellently appointed bathing establishment, and has made all suitable provision for the drinking of the waters on the spot, and for their distribution through the usual commercial agencies. Since the water has been obtainable in London I have observed its effects in some twenty-five patients. They may be divided into three groups: those in which a state of chronic lithæmia is associated with articular pain and osteoid deposit; subjects of chronic gastric catarrh associated with gastric distension and a measure of anæmia; two cases of marked cardiac dilatation associated with anæmia and neurasthenia. In the first group of cases the lithium salt has probably been of material value; arthritic pain has been relieved, and the patients themselves have expressed the conviction that the remedy has been of use. In the second group the digestion has improved and the tongue has cleaned, and the general health has shown a marked improvement. Of the two cases of cardiac dilatation the first was that of a girl nearly fourteen years of age and approaching puberty, who seemed to be unable to recover from a recent access of measles. She was found to be very anæmic and was reported to be unable to give her mind to her studies. The nipples were six inches apart. The transverse measurement of the area of cardiac dulness as ascertained by ausculto-percussion was also six inches, one and a half of which were on the right side and four and a half on the left side of the middle line on Oct. 27th last. The apex beat was a little outside the nipple line. On the 31st the area of dulness measured five inches transversely, and the apex beat was in the nipple line. On Nov. 7th the area of dulness measured three and three-quarters inches, and the apex beat was found to be one inch within the nipple line. On the 13th no further recession was found on the left side, but one of about three-quarters of an inch was noted on the right side. The apex beat had not moved. The patient being full of energy and spirits and the colour of the face and lips testifying to the complete repair of the blood, she was discharged. The second case was that of a young man nineteen years of age, very anæmic, neurasthenic, and the subject of constant vertigo. The distance between the nipples was seven inches and the transverse measurement of the area of cardiac dulness six. The apex beat was in the sixth interspace half an inch outside the nipple line on the ninth of this month. On the 13th the area of dulness had diminished by half an inch, and the apex beat was found to be in the fifth interspace in the nipple line. On the 21st the area of dulness had shrunk by another half-inch, and the apex beat was half an inch within the nipple line. He is still under treatment, but the anæmia is nearly repaired, there is no vertigo, and he is able to resume his professional work. One feature is common to all these cases—namely, the remarkable relief of anæmia,—and it is the more striking as in no instance has either iron or arsenic been exhibited. In the last quoted case there were evidences of chronic gastric catarrh, and some salicylate of bismuth was taken in conjunction with the Llangammarch water. It is important to note that in no case have I found any undue arterial tension to follow the ingestion of the water. The doses have been from six to eight ounces twice a day, gradually increased to ten or twelve ounces.

Although these observations are not sufficiently numerous to afford a basis for generalisation, I cannot but regard them as sufficient to justify further and more extensive trials, and I confess that it would not surprise me if the waters of Llangammarch were to establish a claim to hold an important place in cardio-therapeutics. As I hope before long to have an opportunity of giving my experience of their balneological influences on the heart and pulse in both health and disease I will on the present occasion say no more than that they are very similar to those of the Nauheim waters which I recorded in your columns some six months ago.[1]

I am, Sirs, yours faithfully,
W. BEZLY THORNE.

To the Editors of THE LANCET.

SIRS,—I was much interested on reading the article in THE LANCET of Saturday last on "The Barium Waters of Llangammarch and the Therapeutics of Barium Salts," having

[1] THE LANCET, May 5th, 1894.

known the locality for some years and being well acquainted with the reputed qualities of the spring. Whilst fully prepared to admit what is there stated on such good authority as to their action on the heart and their efficacy in certain diseases of that organ, I think that it is in the treatment of diseases and derangements that have a more or less strumous origin that they are likely to find a still more extensive field of usefulness.

The Llangammarch spring contains not only barium chloride, but, as your analysis shows, calcium chloride also, as well as the less important chlorides of sodium and magnesium; and a very remarkable feature is that the barium and calcium chlorides not only possess important therapeutic properties in common, but they are present in the Llangammarch water in the exact ratio of their respective doses—a very important point when it is borne in mind that they must necessarily be taken together at the spring, and especially not to be lost sight of when estimating the maximum or other dose proper to be taken in any given case. Under these circumstances it will be better to consider their therapeutic action conjointly, the more especially as the other saline constituents are calculated to assist rather than to retard their action. In small doses, as of a tumblerful three or four times a day, it appears to act as a stimulant, tonic, alterative, and resolvant. Under its use the appetite increases and there are augmented secretion of the kidneys and slight diaphoresis, and at the same time the general health improves. If long continued it appears to act specifically upon the lymphatic glandular system, causing the reduction and absorption of glandular and other tumours; whilst in fibrous tumours of the uterus it is likely to prove of service as well as in non-malignant tumours of the ovaries, seeing that the use of both calcium and barium chlorides has been attended by marked benefit in these cases as well as in ovarian dropsy.

Barium chloride was first proposed as a remedy in scrofula by Crawford.[1] Mr. R. Phillips[2] preferred it to iodine, and states that where the sallow complexion, pale tongue, and languid circulation, accompanied by irritability of the mucous surfaces, are present the virtues of the chloride of barium are often remarkably demonstrated. Mr. Bulman[3] entertained a very favourable opinion of its efficacy in chlorotic, cachectic, and other cases, attended with a languid circulation and much general debility. He considers that it is well adapted for females of a lymphatic temperament and attended with irregularity of the menstrual functions. In scrofulous diseases of the joints and white swellings Torget[4] speaks highly of its efficacy. He considers it a most valuable remedy, and believes that in some cases it has alone sufficed to effect a cure, whilst the majority of cases were greatly relieved by its use. In epilepsy and headaches occurring in connexion with scrofula it is spoken of very favourably by Hufeland, and in scrofulous ophthalmia it has been successfully employed by Dr. Pay,[5] locally as well as internally. Dr. A. T. Thompson regards the calcium chloride in cases of scrofula as one of the best medicines we possess, and in chronic skin diseases, especially in lupus, eczema, and impetigo, it is well spoken of by Cazenove.[6] In fibrous tumours of the uterus Dr. M'Clintock, following Dr. Rigby's recommendation, gave it an extended trial, and in one instance its prolonged use was followed by a complete cure.[7] The combination of barium and calcium chlorides appears to me to possess considerable advantages when taken together over the calcium chloride when taken alone, inasmuch as the dose required is much less and an equal or greater therapeutic effect is attained by the introduction of a smaller amount of earthy salts into the blood. I consider that one tumblerful of the Llangammarch water is a sufficient dose in most cases and that two tumblerfuls should seldom if ever be exceeded, though the dose may be repeated three or four times a day. Knowing what we do of the medicinal properties of barium and calcium chlorides, and that the natural mineral waters containing the latter, as those of Kreuznach in the Rhine district and Llandrindod in Wales, have long enjoyed considerable repute in the treatment of strumous affections, glandular and other enlargements, chronic skin diseases, and some forms of gout and rheumatism, as well as of derangements of the liver, it appears a most fortunate combination of circumstances that we possess so near home a natural mineral spring which contains both the above constituents in the exact proportion in which it is desirable to administer them, and in the precise state of dilution in which it is safe and proper to continue their use, and, at the same time, combined with saline ingredients which both aid their action and render them palatable; and when, in connexion with these facts, it is also borne in mind that the locality where the spring is situated is one which, from its invigorating climate and picturesque surroundings, is eminently calculated to favour a return to health, we must acknowledge a combination which leaves little to be desired.

I am, Sirs, yours faithfully,

FREDERICK GEORGE, M.D.

Albemarle-street, W., Nov. 27th, 1894.

[1] Medical Communications, vol. ii.
[2] On Scrofula. London, 1846.
[3] Medical Gazette, Aug. 22nd, 1851.
[4] Bull. Gen. de Thérap., September, 1840.
[5] Revue Médicale, April, 1840.
[6] Provincial Journal, April 2nd, 1851.
[7] Dr. Grailly Hewitt, p. 558.

"THE PREVENTION OF SMALL-POX."

To the Editors of THE LANCET.

SIRS,—"The compulsory inoculation of every member of the community with any kind of lymph or vaccine is, in my opinion, not only unnecessary, but unjustifiable," is the astounding assertion of Professor Crookshank. And this scientific man further holds out that small-pox could, and should, be stamped out by isolation in the same manner as cattle plagues, such as cattle small-pox, are treated. Professor Crookshank knows that cattle plagues have not universally been "stamped out by isolation and the pole-axe" and that they will not be until this millennium has been established—viz., that every country in the universe acts in the same manner that we do. And he knows that when cattle plague attacks a herd in a few hours all the herd are down. And he knows also that when small-pox is introduced amongst a community of unvaccinated persons very few escape; and, again, that those whose lives are spared have, through this terrible human scourge, either lost the sight of both eyes or are otherwise maimed and disfigured. Legislative isolation (without the pole-axe!) could only be enforced when at least one family of unvaccinated persons had been destroyed, and no man could wish his family to be the one attacked—certainly not, we may suppose, Professor Crookshank. It is a cruel thing to still further fan the flame of the crusade against enforced vaccination. By all means let strict isolation during epidemics of small-pox be carried out, but let vaccination go side by side with it. However irksome vaccination and revaccination may be to all classes, especially to the poor, as Dr. Crookshank justly remarks, yet they are, as sure preventives a necessity, and I trust that some day Professor Crookshank, awaiting the isolation millennium, may come to think so.

I am, Sirs, yours faithfully,

Canterbury, Nov. 26th, 1894. PUGIN THORNTON.

To the Editors of THE LANCET.

SIRS,—The catholicity of your admirable journal and the integrity of purpose with which you put in practice the legend "Audi alteram partem" were never more clearly evinced than in the juxtaposition[1] of Professor Crookshank's Address upon the Prevention of Small-pox and the dignified editorial protest which it called forth. It appears to the writer that no question of this day so imperiously calls upon every man of experience to declare his own mind—no matter with how little local prestige to back his opinion,—and through whatever channel open to him, in order that facts, not theories, may receive their just weight in the momentous decision of both Government and people. Out of the stores of forty years I hope, with such intent, you will permit me to publish the following brief narrative of an experience which has marked and will justly influence my whole life-action upon this matter. In the first year of my independent practice the young daughter of my laundrywoman called one morning to say that her mother was too ill to come for her usual list. The two lived in a cottage on the outskirts of the town, but I made it my business to visit the invalid at an early hour. The case proved to be one of typical small-pox in the second day of eruption. Neither mother nor daughter had ever been vaccinated, and I could not recollect this operation in my own person, though two cicatrices were

[1] THE LANCET, Nov 24th, 1894.

vi-ible upon my left arm. From an elderly *confrère* I obtained part of a "crust" (then in universal use) wherewith the same day to protect myself and the girl, aged twelve, who was her mother's sole attendant. The law required a yellow "warning placard" to be affixed to the cottage door, and from that day till the end I constituted myself "universal provider," while the child was the only obtainable nurse and attendant. The vaccine "took" in her case in the two "places" then supposed sufficient for efficient insertion, but no result followed in my own. Nevertheless, she lived, ate, and slept within the precincts of the two rooms which constituted their dwelling during the remainder of her mother's life (the latter dying from the confluent form of the disease upon the fourteenth day), yet escaped the slightest inconvenience so far as health was concerned, as did also the medical attendant. Could one conceive of a smaller chance of freedom from infection than had this faithful, devoted daughter? With all the disadvantages of unprotected youth, great physical exhaustion, and deep mental anxiety—for the two were tenderly attached—the vaccine principle in the shape of "crust," which had been kept by my friend for more than a month in a simple stoppered phial, inserted thoroughly, indeed, yet in but two places, violated every canon of modern supposed efficiency in the immunity conferred. To conclude, I may add that the two cicatrices of infancy have remained to this day, in spite of many and various trials, my sole evidences of protection, yet I have seen many cases of small-pox in its most virulent form, and may perhaps be informed that not the least element of my safety has been the *perfect confidence* born of such events as I have narrated.

I am, Sirs, yours very truly,

H. WEBSTER JONES, M.D. Yale Univ., '58.

Cavendish Mansions.

To the Editors of THE LANCET.

SIRS,—Having seen something of small-pox from the practical side of a small-pox hospital, a slight difficulty in applying Professor Crookshank's "stamping-out and no vaccination" system occurs to me. Where are we to find a sufficient number of nurses who have had small-pox? Doubtless this difficulty will be removed when Professor Crookshank's system has been long enough in operation, but is it not likely to be a little formidable at first?

I am, Sirs, yours faithfully,

Nov. 26th, 1894. R. M. O.

"THE PRACTICAL TREATMENT OF DIPHTHERIA WITH ANTITOXIN."

To the Editors of THE LANCET.

SIRS,—I have read Dr. John A. Turner's account of his inquiry into the treatment of diphtheria by antitoxin with very great interest and hoped that he would be able to show by figures that it was effectual in largely saving life; but I regret to say that I am greatly disappointed. He gives as the result of the treatment of 1081 cases a death percentage of 24, and this agrees very closely with the serum treatment of 448 children in the Hôpital des Enfants Malades from February to July, of whom 109 died, giving a percentage of 24·3. I see in your analysis of sickness and mortality in London for September that the notified cases of diphtheria were 900 and the deaths 211, which gives 20·3 per cent. And in the table for October you give notified cases as 1216 and deaths 283, which is equal to 23·22 per cent. We had a very serious outbreak in this district last year, and the deaths of those treated in the isolation hospital, including tracheotomy cases, were 18·6 per cent., and of those treated in their own homes 24·1 per cent. It is very disappointing to anticipate failure when our hopes have been so raised, but it is necessary to see more favourable results before we can feel much confidence in the new treatment.

I am, Sirs, yours faithfully,

J. ADAMS, M.D.,

Medical Officer of Health, Barnes District Local Board.

Nov. 20th, 1894.

"IS INFANT MORTALITY INCREASING?"

To the Editors of THE LANCET.

SIRS,—In an article in THE LANCET of Nov. 24th, under the above heading, you very properly question the accuracy of Mr. Asquith's statement in the remarks he addressed to a deputation from the Parliamentary Bills Committee of the British Medical Association, to the effect that infant mortality is increasing. May I be allowed to point out that Mr. Asquith alone was responsible for this statement, the only question to which his attention was directed being the persistently high infant mortality in certain artisan towns as compared with others, brought about, as it was contended, by the employment, chiefly in factories, of large numbers of married women.—I am, Sirs, yours faithfully,

Stafford, Nov. 26th, 1894. GEORGE REID.

"THE AMOUNT OF MEMBRANE IN DIPHTHERIA AS AN ELEMENT OF PROGNOSIS."

To the Editors of THE LANCET.

SIRS,—The importance of the question at issue must plead as an excuse for my persistence. With all deference I cannot admit that the three words "in some cases" prefixed to the statement of Dr. Donald Hood "that where the membrane was especially abundant the prognosis was favourable" make the least difference; and the reason I did not use them in my former note to you was that in debate I specifically refused to accept such an opinion "or any modification of it." I ask permission to reassert my contention that under no possible circumstances can an abundance of membrane in a case of true diphtheria constitute an element of favourable prognosis; on the contrary, it is generally, and especially in very young children, an essential factor of the gravest import.

I am, Sirs, yours, &c.,

Mansfield-street, W., Nov. 24th, 1894. LENNOX BROWNE.

THE PAY SYSTEM AND THE GREAT NORTHERN CENTRAL HOSPITAL.

To the Editors of THE LANCET.

SIRS,—I send you a copy of a circular letter which is to be sent this week to the medical practitioners of North London, with a request that you will find space for it in your next issue.

I am, Sirs, yours faithfully,

Holloway-road, London, N., Nov. 28th. JAS. CRABB.

[ENCLOSURE.]

VERY IMPORTANT.

409, Holloway-road, London, N.
Nov. 29th, 1894.

DEAR SIR,—At a meeting of medical practitioners held in the Athenæum, Camden-road, on Monday, Nov. 26th, the history of the agitation against the pay wards of the Great Northern Central Hospital was detailed, and the replies of the staff and committee of the hospital to our protest were read. A resolution to the effect that these replies were highly unsatisfactory was carried unanimously. A resolution was then proposed, and received much support, that we as a body should abstain from calling in consultation members of the staff of any charitable hospital admitting pay patients. This was opposed by some of the gentlemen present, and as it was thought that any action we take, to be thoroughly effective, must be unanimous, it was agreed that the meeting should be postponed until Dec. 6th, at 4 P.M., at the Athenæum, Camden-road, and that in the interim a circular should be sent to all those that signed the original protest, advising them of what was proposed, so as to give each one an opportunity of thinking over it and expressing a mature opinion upon it. As it appears to the committee to be possible that absolute unanimity may not be attained upon this resolution, it is proposed to substitute for it the following: "That this meeting of medical practitioners of the north of London, whilst regretting the rupture of amicable professional relations with the staff of the Great Northern Central Hospital, affirms its position that the action of the staff is ethically indefensible, and contrary to the interests of the profession at large."

A proposition will also be laid before the meeting to form a society, with the object of keeping the question to the front, and also of ventilating the whole question of hospital abuse and of suggesting remedies. The importance of this meeting is obvious, and it is earnestly hoped you will be able to attend, as the committee desire to have a full expression of opinion upon the subject of this circular.

Please induce as many as possible to attend, whether they have had an opportunity or not of signing the protest.

I am, yours faithfully,

JAMES CRABB, Secretary to the Committee.

"RHEUMATISM IN SCARLET FEVER."

To the Editors of THE LANCET.

SIRS,—I have by me notes of some 870 cases of scarlet fever which were under my care while resident in the Belvidere Fever Hospital, Glasgow, and though too small a number for statistical purposes by itself they may be interesting in view of Dr. Aubrey D. P. Hodges' paper in THE LANCET of Nov. 17th. In these 870 there were 53

cases in which articular rheumatism was noted, besides other 11 cases in which there was some cardiac affection of a rheumatic nature. This makes a total of 64 cases, or 7·34 per cent. The cases labeled "endocarditis" in the following table do not include more than a fraction of the instances of distinct cardiac murmur, but only cases where a distinct murmur persisted for a long time—in most cases as long as the patient was under observation. Besides, in a large proportion of the cases the murmur or its louder development coincides with the rise of temperature and preceded the articular pains: a point, by-the-bye, to which Dr. Hodges does not refer, though I have no doubt he must have frequently observed it, and which still further increases the resemblance between ordinary and so-called scarlatinal rheumatism. One of the cases occurred as late as the eighth week, when a child aged six was running about ready for dismissal. She was observed to be feverish, and the temperature proved to be 100·6° F. A ventricular systolic murmur was found that evening, but nothing else (a slight ventricular systolic murmur had been present in the earlier weeks of illness, but had passed away). The next morning there was pain with effusion into the right knee-joint. It was a slight case, but when dismissed the murmur was still present. In two cases of erythema nodosum the same course of events took place: first, the eruption, then the cardiac and lastly the joint implication. The rheumatic condition most frequently made its appearance towards the end of the first week in my cases, though the period of its appearance was very varied.

Comparative Frequency of the Manifestations of the Rheumatic Condition.

1. Articular rheumatism	53 cases	In 26 of these cases articular rheumatism only was noted, and no other complication or even persistent murmur.
2. Endocarditis	21 ,,	
3. Pericarditis	9 ,,	
4. Pleurisy	5 ,,	
5. Chorea, peripheral neuritis, &c. ...	5 ,,	
6. Erythema nodosum	2 ,,	
7. Phlebitis	1 ,,	
8. Urticaria	1 ,,	

As regards the relation of rheumatism to the severity of the scarlet fever, 12 cases were associated with "bad scarlet fever" (some of these were malignant cases, others "scarlatina anginosa"); but it does not appear that there is any very close connexion between them. The rheumatism in 5 cases was a direct danger to life and in the 37 deaths in the whole series 2 were due to the rheumatic condition. In one, a child aged six, in which the kidney condition largely shared the responsibility for the death, there were pleurisy and pericarditis with effusion and very severe articular pain, and it was most noticeable how the kidney condition seemed to be aggravated by the use of the salicylate of soda, though it alone seemed to relieve the pain. The other death was due to pleurisy in a young adult after an attack of scarlet fever of a severe type. In no case did suppurative arthritis follow rheumatism, but there were 4 cases in which there was a pyæmic condition with suppurative arthritis. Three of these had gangrenous conditions of the throat, and the fourth was sent into hospital after a double osteotomy, and was in an undoubtedly septic condition. Two cases of chorea antedated the scarlet fever, and in neither was there a history of previous rheumatism obtainable. One case of endocarditis with pericarditis had, before his pericarditis developed, a very marked phlebitis, the veins of the right leg and left arm being beautifully mapped out. And amongst those in whom the endothelial mischief was prominent was a child aged six, who clinically presented all the features of ulcerative endocarditis with beautiful ague-like attacks, but he recovered, so the diagnosis was not confirmed post mortem. Children seem to suffer more frequently, but on the whole less severely, than adults, and in them chiefly the wrists and hands were affected. My notes do not admit of my giving the percentage of frequency at different ages.

I am, Sirs, yours faithfully,
W. A. PARKER, M.B.,
Pathologist, County Asylum, Lancaster.

"CERTIFYING UNDER THE LUNACY ACTS."

To the Editors of THE LANCET.

SIRS,—In THE LANCET of Nov. 14th "Lex" asks whether the Commissioners in Lunacy can be supposed to "interview all patients"—all private patients, that is. From a somewhat large experience of these visitors I certainly believe they do. "Lex" seems unaware that all certificates are carefully read as they are returned to Whitehall by the Commissioners personally, many are sent back for further inquiries, and a list is kept of all mild cases and of cases apparently due to transient causes, such as alcohol, opium, and so forth. The correspondence in all cases and letters from patients themselves seeming to need inquiry, are entrusted to the respective Commissioners on their visitations, and I have constantly seen these papers produced and considered on the visit. I have never known a new or recent case not formally interviewed, and whenever, on being questioned, a patient seems disposed to converse a private interview is offered, and is often, of course, accepted. The visits are made leisurely, and the Commissioners seem very well able to remember all the more intelligent inmates personally, and generally to remember them even by name only, in conversation with the medical officers. Finally, I may say that the number of patients dismissed within a day or two of admission is considerable, though, of course, I can give no estimate of the number. In such cases there has usually been some temporary insanity which has as quickly passed away—rarely, I think, a false diagnosis.

I am, Sirs, yours faithfully,
Nov. 23th. R. V.

PROPOSED ASSOCIATION OF ASSISTANTS AND LOCUM TENENTES.

To the Editors of THE LANCET.

SIRS,—It has struck me that it would be very desirable to form an Association of Assistants and Locum Tenentes to look after and uphold their mutual interests and welfare in relation to principals, as well as to afford mutual help and protection in cases of sickness or want, or the unprincipled behaviour of those on whom they have to depend for a subsistence, and I feel quite sure you will lend all the assistance in your power towards so laudable an object, since many good men and true have to spend years of their lives in doing the drudgery of the profession, and have to submit to many grievances at the hands of bad or indifferent principals—and there are such about, unfortunately—which, were they united, they could readily rectify. I hope, therefore, you will allow me space in your important columns to broach the subject to assistants and locum tenentes in general, including all holding junior or assistant appointments, throughout the United Kingdom, in order that all in favour of, and both willing to join and to support, such an association, may, in the first place, send in their names to you, to see whether the idea meets with adequate support or not; so that if it does, as it ought to do, preliminary steps may be taken towards the formation of the association, and systematic expressions of opinion invited both as to the form such association shall take and to the specific objects it is desirable to take in hand, &c. All that is required in the first instance, then, is that all willing to join in such an association should send in their names and addresses to you on postcards, and if you judge from their numbers that the idea meets with adequate support I will subsequently submit details and offer my services towards the organisation of the same; but for the present

I remain, Sirs, yours truly,
Nov. 16th, 1894. AN ASSISTANT.

*** We do not underrate the possible value of such an association to a very useful division of the profession, but we cannot undertake to judge whether our correspondent's idea will meet with adequate support.—ED. L.

MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

Medical Guild.

As the outcome of a paper read by Dr. Stewart of Pendleton, in February last, at a meeting of the Medico-Ethical Association, on the Working of the Provident Dispensaries, in which he suggested the formation of a medical guild, a committee was appointed, subsequently several meetings of the local profession were held, and the medical guild has become an accomplished fact. As yet it is, of course, in an infantile stage, but growing. Its object is to aim at the organisation of the profession in order to secure united action and the coöperation of all for the common

good. It was originally intended to provide also "medical attendance for the poor and for such of the working classes as are not able to pay ordinary fees"; but it has so far been found difficult to devise a scheme satisfactory to all, and this matter is for the present in abeyance. The provident dispensary system is extremely unpopular with the general practitioners, especially in the districts chiefly peopled by artisans, small shopkeepers, and publicans. The touting for patients and advertising carried on by the distribution of handbills broadcast is held to be a discreditable and unfair mode of competition. It is only just to say that the medical staff is not often, if ever, directly responsible, and in some instances has protested against it. Then, too, the private dispensaries and the six-penny doctors are not looked on as elevating the profession, and efforts will be made to raise the status and self-respect of these practitioners. How these various and difficult problems can be dealt with remains to be seen.

Hospital for Incurables.

The annual meeting was held on the 22nd inst., and it was stated that though the hospital, like most charities, "had suffered from the continued depression in trade and had experienced a somewhat serious loss from subscriptions, the report, with that one exception, would be found eminently satisfactory." The general administration of the homes had been excellent and the patients had been well cared for; £2050 had been received in legacies and £310 10*s.* towards a pension fund. The total receipts had been £7045, and the payments, including the foregoing £310 to pension fund suspense account, £7444, leaving a balance due to the bank of £398, being an increase of £310 owing to that amount. From the Hospital Sunday Fund they received £727. At the end of last year 108 patients were in the homes, and since then nine were admitted to Mauldeth and three to Walmersley. Owing to deaths there were the same number (108) in the homes on Oct. 31st. One of the speakers explained that the out-pension scheme was to assist cases with some means of their own to find a home outside the institution. In cases not totally helpless it would be a valuable development of the work of the hospital. Mauldeth is a few miles out of Manchester, and was once the residence of James Prince Lee, the first Bishop of Manchester, who was succeeded by the much lamented Bishop Fraser. It is pleasantly situated and well adapted for its present purpose. Walmersley is near Bolton, and the cases sent there are chiefly those which, though admitted as incurable, show some indications of possible amendment.

Hospital Saturday and Sunday Fund.

The twenty-fifth annual meeting was held in the Town Hall last week. The honorary secretary said that up to June 30th the amount received was £7882. Last year it was £7887, but £24 13*s.* had been received since, so this year's receipts were £19 8*s.* more than those of 1893. For the last few years the amount collected at the churches and chapels has gradually, though almost imperceptibly, diminished, while the Saturday fund has steadily increased. It would be interesting to know if this has arisen from the trade depression telling more on the middle than on the working classes. Since its establishment in 1870 the fund has yielded £187 676 to the medical charities of Manchester and Salford. A resolution was unanimously passed expressing regret at the retirement of the honorary secretary, the Rev. John Henn, and testifying to the great value of his services to the community in starting the Hospital Sunday movement twenty-five years ago, &c. Mr. Henn made an interesting reply, sketching the history of the fund. He "invited to a meeting the leading representatives of all the denominations of religious bodies, gave them his views of the necessities then pressing on the community, and how he thought they might be met. This was in January, 1870, and the result was the establishment of Hospital Sunday and the first collections made the following month resulted in the noble contribution of £5540. This mode of raising funds for institutions which were necessary to the community was speedily copied, not only in this country but in almost every part of the English-speaking world." Mr. Henn remains a member of the committee. It seems fitting that his name should be remembered by the medical profession, and still more by those who have been directly benefited by the action he took a quarter of a century ago.

Manchester Royal Infirmary.

The removing of patients to the meetings of the medical societies for purposes of demonstration has of late been strongly opposed by one member, but has now been sanctioned by the lay board, subject to proper regulations. An eight weeks' course of post-graduate lectures is to be given in the infirmary wards in the afternoons during the months of June and July. There will be two lectures a week, one medical and one surgical.

Nov. 27th.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

The University of Durham.

DR. KITCHEN, the new Dean of Durham, issued the usual notices calling Convocation together on Nov. 11th for the purpose of, amongst other business, affixing the seal of the University "to a petition to Her Majesty the Queen for a supplementary charter to enable the University to confer degrees upon women and to hold convocations elsewhere than in Durham." The latter clause will enable medical students who pass their examinations in Newcastle to receive degrees there, instead of being, as hitherto, compelled to come to Durham for that purpose.

Tynemouth Infirmary.

At the annual meeting of the Tynemouth Infirmary it was stated that the income had been well within the expenditure and that one-half of the voluntary contributions had been given by the working men of the borough.

Death of Mr. MacCulloch of Abbey Town, Cumberland.

Much regret is felt in Holme-Cultram at the unexpected death of Mr. MacCulloch of Abbey Town. He was for a number of years medical officer of health of the urban sanitary district of Holme-Cultram and medical officer of the Bowness district in the Wigton Union.

The Tees Floating Hospital.

Much interest was shown in a paper read by Mr. Stainthorpe last week at Middlesbrough, before a meeting of the county engineers, describing the floating hospital now at the Tees mouth, and which is unique of its kind. The hospital was floated on ten huge cylinders, each 86 ft. long by 6 ft. in diameter, and provided the usual wards, and the administrative department was fully and well arranged separately. A 300-gallon cistern provided the fresh water-supply, and hot and cold water had been freely laid into the wards. Great care had been taken to secure thorough ventilation by double sashes and Kites' fresh inlet ventilators. About 60,000 seamen entered the Tees every year from all parts of the globe, so that this hospital was a necessity. It was floating in an artificial bay with a strong breakwater to protect it from the north-east winds. Its cost was £10,000.

Death of Dr. Walker of Redcar.

I regret to note the death of Dr. Walker of Redcar, which took place last Friday at his residence, Coatham. He has left a widow, but no family.

Newcastle-on-Tyne, Nov. 28th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

Edinburgh Royal Infirmary.

IN the financial statement submitted by the treasurer to the managers of the Royal Infirmary the total income was shown to be £29,686 0*s.* 5*d.*, being a decrease of £1083 4*s.* 10*d.* as compared with the previous year. There was a decrease of £937 in subscriptions and of £428 in students' fees. The extraordinary receipts amounted to £22 376, compared with £14,618 for the preceding year. The weak point in the finances of the infirmary is the comparatively small contributions made from some of the counties. The infirmary is open to all sick persons, and patients attend and are admitted from all parts of Scotland and the north of England. During the past year, for instance, fifty-four patients from Inverness-shire were treated, and the contributions from that county only amounted to £6 14*s.* 6*d.* or 2*s.* 6*d.* a head.

The October Examinations at Edinburgh University.

The statistics of these examinations have now been published, and the results show that the total number of first

year's arts students is 251, the total first year's science students 52, and the total first year's medical students 193.

Royal Physical Society, Edinburgh.

The opening meeting of this society was held on Wednesday of last week, when the retiring president, Professor H. Alleyne Nicholson of Aberdeen University, delivered his valedictory address on the Doctrine of the Permanence of the Ocean Basins.

Formal Opening of the Victoria Hospital for Consumption, Edinburgh.

This hospital, an account of which was given here some time ago, was formally opened on Thursday of last week by Lord Stormonth-Darling, in presence of a large number of ladies and gentlemen who had been invited to the ceremony. Both his lordship and the speakers referred to the good work the Victoria Dispensary had already done, and of the need for this hospital. It was not a rival to any other medical institution in the city; and, as showing the need there was for it, it was stated that it could have been filled ten times over, the number of applicants was so large.

Edinburgh Medical Missionary Society.

The annual meeting of the Edinburgh Medical Missionary Society was held last week, Professor Sir Thomas Grainger Stewart, president of the society, occupying the chair. In the report submitted by the superintendent, Dr. Fry, it is stated that the winter session had begun with forty-two students, including eight ladies, a larger number than had ever before been enrolled.

A Plea of Arrested Mental Development.

A destructive fire recently occurred at Trinity College, Glenalmond, Perthshire, for which one of the boys at the college was arrested and pleaded guilty to the charge of fire-raising and of having made a second attempt in another part of the building. The boy was remitted to the High Court of Justiciary in Edinburgh for sentence. Evidence was adduced which showed that when a child the prisoner had meningitis, that recently his head had been hurt at football, after which he suffered from pain in the head, and his school work had markedly fallen off. There was no motive for the fire-raising, for the boy had not been punished. The deed was done the day after the lesson in the Old Testament happened to be a chapter in the Book of Daniel, in which there was an account of the fiery furnace, and the clergyman in preaching made some reference to fire. The boy had also told two of the other boys what he intended to do, but they had not taken the matter seriously. Dr. Clouston was examined on behalf of the prisoner, and stated that he considered it a case of arrested mental development, that the boy manifested no appreciation of the gravity of the act, and that his manner was frank and more that of a child. Dr. Littlejohn concurred in this view. The boy was sentenced to one year's imprisonment. He is a son of Sir James Fergusson, Bart., M.P., and nephew of Sir Charles Dalrymple, Bart., M.P.

Infectious Diseases in Edinburgh and Leith.

Last week there were four deaths from small-pox in Edinburgh, and forty-one fresh cases of the disease were reported. In Leith one case of small-pox was reported.

Edinburgh University and Lady Medical Students

The case of female students of medicine is being attended to by the University Court, and a committee is going into the case of each individual student and deciding who have passed a sufficient preliminary examination for matriculation.

Public Health of Glasgow.

The most important event of the past week as regards public health was the discovery of a case (the first for many months) of small-pox in Glasgow. The patient was literally captured under somewhat dramatic circumstances in a public dispensary connected with one of our infirmaries. When informed of the nature of his illness and of the necessity for removal to hospital he rushed for the street, accompanied by the physician on duty, however, who managed to anticipate his movements and lock the door. While waiting for the sanitary officials, who had been telephoned for, the patient made another attempt to escape by the window, but was again unsuccessful. By prompt removal of the patient (a tramp, who had recently passed through Leith and Edinburgh, where small-pox is just now prevalent) and vaccination of all who might have come into contact with him the threatened outbreak has apparently been arrested, as up to the present time no further case of the affection has been reported.

Glasgow Maternity Hospital

This institution has done good work in the past year. 476 patients were confined within the hospital, 464 living children being born; 2359 confinements were attended in the outdoor department; 58 nurses were trained; and 167 medical students have been afforded opportunities for the study of practical obstetrics. Unlike most Glasgow hospitals, this one closes the year with a balance of £20 to the good, a result mainly due to the newly organised Ladies' Auxiliary Committee, which has raised £250 as an addition to the ordinary income of the hospital.

Nov. 27th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

Health of Dublin for October.

As compared with the previous month the fatal cases of small-pox were almost double, the number being thirteen. Eighty-seven cases of this disease were admitted into hospital, and as regards other diseases there was no marked difference between the two months. Small-pox, which at first was confined to the north side, has now shifted almost completely to the south side of the city; it has also appeared in some of the suburbs. Every effort continues to be made to prevent each fresh case from becoming a new focus of contagion.

Memento of the Tercentenary of Trinity College, Dublin.

The library will shortly be enriched by the gift of a volume bound in red morocco, containing the portraits of the more important guests of the University of Dublin during the tercentenary celebrations of 1892. The donors are Messrs. Werner and Son, photographers, of Dublin. Each portrait is signed in autograph, and the title-page bears a richly illuminated inscription in Latin. There is a portrait of the provost, printed like the others in platinotype, and among others may be mentioned the names of Professor Max Muller, Lord Wolseley, Sir William Geddes, Professor Gusserow of Berlin, Mr. Lecky, Sir A. Geikie, Lord Iveagh, the Lord Provost of Edinburgh, and many foreign visitors, and others.

County Carlow Coronership.

On the 26th inst. the High Sheriff of the county made public declaration of the poll. The following was the voting:—

Mr. Nolan	1915
Mr. E. J. Mulhall	954
Mr. Colgan	234

Medical Appointment.

Mr. Michael O'Sullivan, M.B., B.Ch. R.U.I., has been appointed anæsthetist to the Mater Misericordiæ Hospital. He had previously filled the office of house surgeon in the same hospital.

Entries at the Dublin Medical Schools.

The following is the official list of the anatomy entries for the present session:—

Trinity College	176
Schools of Surgery, Royal College of Surgeons	152
Catholic University Medical School	102

As compared with last year there is a decline of 22 in Trinity College Medical School, a decline of 15 in the Schools of Surgery, Royal College of Surgeons, and a decline of 16 in the Catholic University Medical School, showing a decrease since last year of 53.

The Royal Hospital, Belfast.

From the report presented at the annual meeting held on Nov. 19th I find that during the year ending Aug. 31st, 1894, there were 2325 intern patients, and of these 861 were medical and 1374 surgical. In the extern department 21,316 patients have been treated, and, taking extern and intern together, there were 23,551 patients. During the winter session there were 174 students and during the summer 114. Owing to the crowded state of the extern department its extension became necessary, and new rooms have been built and are now in daily use. The financial year began with a balance against the hospital of £145 13*s.* 1*d.*, and ends with a balance of £199 17*s.* in its favour. On Monday, Nov. 26th, at a meeting of the board of governors, Dr. Mitchell was elected assistant surgeon.

Death of Mr. Hugh Turrettin Heron, M.B., B.Ch. R.U.I.

Sincere regret is felt among a wide circle of friends at the death of Dr. Hugh Heron, a distinguished student of Queen's College, which occurred at Wagenaar's Kraal, Cape Colony, on Nov. 25th, from pulmonary hæmorrhage. Dr. Heron, who was a scholar at Queen's College, Belfast, graduated M.B., B.Ch., B.A.O. of the Royal University in 1891, having obtained the B.A. degree in 1887. He practised for a short time in Dundalk, but, his health giving way, he accepted the appointment of surgeon on one of the vessels of the Union Steamship Company plying to the Cape. He was the third son of Professor Heron, D.D.

The Ulster Medical Society.

The annual dinner of the Ulster Medical Society was held in the Grand Central Hotel, Belfast, on Nov. 22nd, the President, Brigade-Surgeon M'Farland, in the chair. There was a large attendance, among the guests being the Lord Mayor, the President of Queen's College (Rev. Dr. Hamilton), the Presidents of the Royal College of Physicians and of the Royal College of Surgeons, and the President of the North of Ireland Branch of the British Medical Association. The following were the principal toasts: "The Queen," "The Lord-Lieutenant and Prosperity to Ireland," "The Queen's College and Belfast Medical School," "The Dublin Medical School," and "The President of the Ulster Medical Society." The dinner was in every respect a marked success.

The Queen's College Students' Union.

A sum of £7500 will be available for this object, £4000 from the bazaar and £3500 from subscriptions. It has been recommended to erect the new building on the north-east corner of the College grounds (the lower end of University-square), and to spend £5000 on the buildings and furnishing and to keep the remainder as an endowment. A subcommittee is looking after the arrangements, which will be pushed on rapidly.

Nov. 27th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

A Means of Preserving Urine for Analysis.

IT occasionally happens that the busy practitioner is obliged to defer analysis of a specimen of urine until decomposition has rendered it valueless for his purpose. Dr. Huguet, professor at the Medical School of Clermont-Ferrand, states that urine can be kept for an indefinite period if to the contents of the vessel there be added 2 c.c. of the following solution: Mercuric cyanide, 10 grammes; water, 100 grammes. The addition of this salt does not alter the acidity of the urine, nor does it invalidate the results of the analysis.

Persistent Amblyopia due to Quinine.

A man thirty-five years of age recently came under the notice of M. Desbrières.[1] The patient complained that for the past three months all objects perceived appeared to him to be covered with down, and that, in addition, he was colour-blind. This visual trouble had come on one morning after the ingestion (on the previous evening) of four teaspoonfuls of sulphate of quinine, he being at the time under the influence of drink. As a rule, this quinic amblyopia disappears rapidly, but in this case the condition was persistent, probably owing to alcoholism.

Coronary Angina Pectoris.

Numerous theories have been advanced to explain the occurrence of that curious and too often tragical syndroma, angina pectoris. Atheroma, ossification of the costal cartilages, neuritis of the cardiac plexus—each of these causes have been assigned. The theory most in vogue is, perhaps, that which ascribes the heart-pang to obliteration of the coronary arteries. Dr. Huchard[2] exhibited a specimen in which this condition fully explained an attack lasting half an hour, which determined the death from asphyxia of a man aged thirty-three years. The necropsy brought to light recent subacute aortitis, with almost complete obliteration of the embouchure of the two coronaries. The orifices only allowed the penetration of a boar's bristle. The coronary arteries had otherwise lost none of their suppleness and normal calibre. The pain complained of by the deceased was of the nature of that accompanying intense gastralgia (pseudo-gastralgic form of angina pectoris). M. Duflocq also found at the necropsy of a man who died suddenly a partial obliteration, not of the orifices, but of a part of the arteries, five millimetres in length, situated in the intraventricular groove.

The Rationale of the Cold-bath Treatment of Typhoid Fever.

It is already known that the employment in typhoid fever of what is denominated in this country and in Germany as Brand's method (it should be more justly called Currie's method) has the effect of increasing the flow of urine. But what was not hitherto known is the increase of urine toxicity that is brought about by this mode of treatment. In typhoid fever the normal toxicity is diminished by two-thirds. The cold-bath treatment restores from the first few hours the toxicity to the normal, and perseverance in the method determines its further increase (sometimes to double the normal). It is evident that by this means the system is cleared of a large quantity of toxines, and it would seem that it is in this direction that we must look for the beneficial effects of the cold bath in apparently desperate cases. This observation is due to a French army surgeon, M. Ausset.[3]

Fatal Peritonitis from Ruptured Intestine.[4]

A woman aged twenty years was admitted into the Hôpital St. Lazare for gonorrhœa. On the twenty-seventh day of her sojourn at the hospital hyperacute peritonitis set in, with a collection of pus in the pelvis. Laparotomy, with drainage through the vagina, was performed, but the woman succumbed eight days later. The post-mortem examination revealed a rupture of the small intestine. It appears that the patient had before her admission into the hospital been severely kicked in the abdomen by her "bully," and it is probable that she had at that time a rupture of the intestine. Adhesions must have developed which raised a barrier against extravasation. The long interval of twenty-seven days before the onset of peritonitis renders the case a surgical curiosity.

Is Iodoform an Antiseptic?

Most practical surgeons would unhesitatingly say "Yes" to this question. Heyn and Roosing showed, however, in 1887, that the presence of iodoform on gelatine plates did not impede the growth of colonies of microbes, such as the staphylococcus aureus, the pneumococcus, &c. They likewise stated that a plug of iodoform gauze introduced into the vagina of a healthy woman abounded, on its extraction, with bacteria. M. Stchegoleff has recently reinvestigated this question in the laboratory of Professor Straus of Paris.[5] He found that beef-peptone-gelatine bouillon, which is an excellent culture medium for Koch's tubercle bacillus, loses that property when it has incorporated with it 5 per cent. of iodoform, the tubercle bacilli sown in it dying in forty-eight hours. When an emulsion of virulent culture of tubercle bacillus and 10 per cent. of iodoform was employed to inoculate guinea-pigs, the animals survived longer than those that had received non-iodoformed inoculations. Thus iodoform kills the bacilli in the cultures, but only attenuates their virulence when introduced into the system at the same time as the tubercle bacillus. The action of iodoform on the staphylococcus is just the reverse of what it is in the case of the tubercle bacillus, for that micro-organism (the staphylococcus) flourishes in an iodoformed culture medium, while the inoculation of the staphylococcus previously submitted to the action of the drug is inoffensive. From 1½ c.c. to 2 c.c. of iodoformed culture could be injected with impunity, only a trifling local reaction being produced, whereas other animals inoculated with the staphylococcus grown in ordinary media were affected with abscesses or died in a few days from septicæmia. When, however, the iodoform is mixed with the staphylococcus at the moment of inoculation a small local abscess results, showing that there is only attenuation and not suppression of the virulence. M. Stchegoleff thought that perhaps the iodoform, while not attacking directly the staphylococcus, acts nevertheless on the toxine secreted by the microbe. To determine this point he prepared two kinds of culture—one normal and one mixed with 10 per cent. of iodoform. A week later he filtered them in order to deprive them of

[1] Gazette des Hôpitaux de Toulouse, Oct. 13th, 1894.
[2] Société Medicale des Hôpitaux, Nov. 23rd.
[3] Ibid.
[4] Société de Chirurgie, Nov. 21st.
[5] Archives de Médecine Expérimentale, November, 1894.

living organisms, and then inoculated rabbits with them. Those inoculated with non-iodoformed toxines died in a few hours, whereas the animals inoculated with the iodoformed toxines remained well. M. Stchegoleff opines that under the influence of iodoform the toxines of the staphylococcus are converted into non-poisonous iodised compounds. We can now understand how iodoform applied to a sore prevents suppuration and infection without killing the pyogenic organisms. Löffler's diphtheria bacillus is affected by iodoform in much the same way as the staphylococcus. It grows well in an iodoformed culture medium, but its virulence is diminished. The diphtheria toxines are weakened, and even altogether neutralised, by iodoform, provided the drug is present in adequate proportion and for a sufficient length of time.

Dr. Just Lucas-Championnière, surgeon to the St. Louis Hôpital, has been elected a member of the Académie de Médecine. Dr. Lucas-Championnière is as expert with the bicycle as he is with the knife.

Erratum.—In my last week's correspondence it was stated that the proceeds for the past year of the pari-mutuel devoted to charitable purposes were 267,950 francs. The sum really disbursed was 2,679,250 francs (£107,170).

Nov. 28th.

Obituary.

DEPUTY-SURGEON-GENERAL E. H. ROBERTS (RETIRED).

WE regret to announce the death of Deputy-Surgeon-General (retired) E. H. Roberts, on Nov. 24th, at Lansdowne-place, Brighton, at the age of sixty-two years. The late officer served with the 72nd Highlanders in the Crimea from June 15th, 1855, including the expedition to Kertch, siege and fall of Sebastopol and attacks of June 18th and Sept. 8th (medal and clasp and Turkish medal); he also served with the 79th Highlanders in the Indian Mutiny campaigns, including the siege and capture of Lucknow, the attack on Rooyah, the action of Allygunge, and the capture of Barielly (medal with clasp). Deputy-Surgeon-General Roberts served for a short time at Allahabad, but was invalided home for disease of the heart, from which he ultimately died, after having retired from the service. He had seen much service, was an excellent officer, and was deservedly much respected and popular in the medical service.

DEATHS OF FOREIGN MEDICAL MEN.—The deaths of the following eminent foreign medical men are announced:—Dr. D. S. Ermolaeff, formerly Professor of Anatomy in the University of Kazan, from which, however, he was obliged to retire on account of his health some years ago.—Dr. Joaquin Maldonado, one of the oldest and most respected members of the profession in Bogota. He was appointed a professor in the medical school while still very young, and was one of the most active of the organisers of the military hospital.

THE annual dinner of the Harveian Society was held at the Criterion on Thursday, Nov. 22nd, Mr. George Eastes, the President, being in the chair. Seventy-six members and guests were present, including Dr. Pavy, Mr. Hutchinson, Mr. A. Durham, Mr. E. Owen, Mr. Charters Symonds, Dr. Stephen Mackenzie, and Dr. Ward Cousins. Mr. Durham proposed "The Harveian Society," dwelling in an able speech upon its antiquity and useful work. This toast was responded to by the President and by Mr. Cripps Lawrence, the hon. treasurer, who referred to the satisfactory financial position of the society. The toast of the "Sister Societies and Guests" was proposed by Mr. Howard Marsh and responded to by Dr. Pavy, F.R.S., and Dr. Ward Cousins. The President's health was proposed in eloquent terms by Dr. Stephen Mackenzie, who stated that the prosperity of the society was largely due to the following of Harvey's advice—viz., helping to "search out secrets by experiment" and "meeting together for friendly intercourse and in good fellowship." Some excellent hand-bell ringing was performed by the Royal hand-bell ringers, and Messrs. Gawthorp and Pope added greatly to the success of the evening by rendering a selection of vocal music.

THE GENERAL COUNCIL OF MEDICAL EDUCATION AND REGISTRATION.

THE winter sitting of the General Medical Council, which opened on Tuesday, Nov. 27th, has before it a full and important programme.

In the experience of the President, extending over a period of more than thirty years, he cannot remember a session at which business of greater importance and greater interest has been down for consideration. The Council are fortunate in having their President amongst them on this occasion, for he has only just recovered from a severe illness. They are without two other valued members, Sir John Simon and Dr. Haughton, neither of whom, we regret to learn, is in good health.

Sir Richard Quain received numerous congratulations on his appearance in the chair on Tuesday. When Mr. Wheelhouse's turn came to move a vote of thanks to him for his inaugural address, he referred to his illness in fitting terms, and humorously told the Council that he had examined their President very closely and was able to report that he is now in even better condition than during the meeting in May. Mr. Brudenell Carter, to whom was allotted the honour of seconding the motion, caught the spirit of the occasion and protested against their President being susceptible of any improvement. In a short appropriate speech Sir Richard Quain thanked his colleagues for their kind thoughtfulness.

A new piece of statuary has been added to the Council chamber—a bust of the late President, Mr. John Marshall, which has been presented to the Council by his widow. It is a replica in marble of the bust placed in the Royal College of Surgeons, and is the work of Mr. Brock, R.A. It is an admirable work of art, and strikingly recalls the earnest, intellectual, and withal kindly face of the late President. The bust has been placed on the mantel of the fireplace, immediately below the picture of Sir Benjamin Brodie, the first President of the Council. In other parts of the chamber are counterfeits in marble or oil of Mr. Joseph Henry Green, Sir George Paget, and Sir Henry Acland, so that all the past Presidents of the Council are represented, with the single exception of Sir George Burrows. It would surely be a graceful thing on the part of somebody to fill up this blank.

The illiberality, to say nothing of the short-sightedness, of Swiss medical men in throwing every possible obstacle in the way of English practitioners who wish to practise amongst their own countrymen in Switzerland has often been commented upon, but never before, perhaps, in so serious and authoritative a manner as in the presidential address which has just been delivered by Sir Richard Quain at the opening of the session of the General Medical Council. In it he mentioned the attitude taken up by the Minister of the Interior, who stated to a highly qualified British medical man that he was powerless, as "the Medical Board had expressed their determination to reserve all practice in the health resorts to themselves," and few persons will think that his condemnation of this as "alike selfish and all but heartless," was a whit too severe. In glancing down the list of medical men with British qualifications in Switzerland in the Medical Directory we cannot but be struck by its brevity, many of the most important towns and health resorts—such as Interlaken, Zurich, Lausanne, Vevey, Lugano, and Louèche-les-Bains—being entirely omitted. As Sir Richard Quain justly hints,

English physicians will probably remember, when they have to advise patients as to going abroad, that in Switzerland they will find but few of their own countrymen to minister to their medical necessities.

The large number of cases—thirty-four—brought under the notice of the Council for the exercise of its penal powers testifies to the keener sense of what constitutes professional conduct, and the violation of its unwritten code of honour. But it also shows, we fear, that too many are unmindful of the spirit in which they should practise their profession. By a process of elimination it was decided by the Penal Cases Committee to take action in only nine of these cases—that is, nearly three-fourths must have been considered beyond the powers of the Council.

The motion of Dr. Philipson, "That in every course of professional study and examinations bacteriology be contained," which was negatived by the Council without the form of discussion, accentuates the urgency of a question ever present with us, whether our student has not enough, and more than enough, to do at the present time in the five years at their disposal. It must be confessed that the question, although so simple, cannot be answered very readily. Instinctively we say that the curriculum is already overfull—the view apparently taken by the Council; but yet all must recognise that a certain amount of bacteriological knowledge is nowadays expected of the practitioner. The treatment of diphtheria by antitoxin serum is founded largely upon bacteriological diagnosis of the disease, to give only one, though a conspicuous, example of the need for bacteriological knowledge that may become general to the profession. We dealt with the question in our Students' Number of this year, and pointed out that the present-day medical student has already sufficient work to do in the time at his disposal; but that it was almost imperative that those engaged in the teaching and study of medicine should consider the position of bacteriology in medical education, with regard to students proper and to post-graduates.

Dr. Hector Cameron brought before the Council a matter of considerable importance. He pointed out that one or two of the licensing corporations, on finding that one of their licentiates has been removed from the Register, instantly and irrevocably annul the diploma which he held from them. In some instances the Council have found themselves, after a time, able to temper justice with mercy, and to replace on the Register names which had been erased; but no such clemency could be extended to the cases which Dr. Cameron had in view, because the registrable qualification would *ipso facto* have disappeared for good and all as soon as the erasure of the name from the Register was published. Every practitioner who shifts his quarters frequently or who travels abroad should keep in mind the possibility of serious trouble in store for him under Section XIV. of the Medical Act if a letter sent to him by the registrar to his last address remains for six months unanswered.

The report of the visitor and inspector of examinations (Mr. Brudenell Carter and Dr. Duffey) on the final examination of the Conjoint Examining Board in England and the examination in Surgery of the Royal College of Physicians in London was presented on Wednesday afternoon by Sir Dyce Duckworth on behalf of the Examination Committee of the Council. The presentation of the document, an elaborate and by no means short pamphlet, evoked from Sir Walter Foster a sensible protest against the manner in which the Council were called upon to discuss the reports of their committees. All these reports, he considered, should be in the hands of members at least a week before the date of meeting. And we agree with him that in this way alone would it be possible for the members to acquire sufficient knowledge of the contents of the report to make them adequately able to discuss them. Dr. Gairdner having made remarks to the same end, it was decided to defer consideration of the report till the following day, and of the similar reports on the final examinations of the Universities of Edinburgh, Glasgow, and Aberdeen. On Thursday the reports upon the Conjoint Board and the University of Edinburgh were considered and adopted, Dr. Glover repeating the protest against the short time allowed the Council for digestion of the matter contained in them.

TUESDAY, NOV. 27TH.

Sir RICHARD QUAIN, President, in the chair.

Opening of the Session.

The usual winter session of the General Medical Council began to-day at the offices of the Council, Oxford-street, London.

THE PRESIDENT'S ADDRESS.

The PRESIDENT, in delivering his address, said:—I meet with great satisfaction the members of the Council assembled for this, the fifty-seventh, session; for looking back to the long period of years (more than thirty) during which I have been a member of the Council, I cannot remember any session in which business of greater importance has awaited our consideration.

The Visitation and Inspection of Final Examinations.

I have to call your attention to the fact that the cycle of the visitation and inspection of final examinations, commenced in April, 1892, is now complete, and all the reports of the visitors and inspector are in our hands. Of these reports, those on the examinations of the Scottish corporations and Irish universities visited in 1892 and those of the Irish corporations and English universities visited in 1893, have been already submitted to the Council for consideration. At this present meeting those reports that have not been already presented to the Council will be laid before us. They are four in number, and include a report by the examination committee on the final examinations of the University of Glasgow, visited by Dr. MacAlister; a report on the final examinations of the University of Aberdeen, also visited by Dr. MacAlister; a report on the final examinations of the University of Edinburgh, visited by Mr. Bryant; and a report on the final examinations of the English Conjoint Board and on the examination in surgery for the licence of the Royal College of Physicians of London, visited by Mr. Brudenell Carter. A special visitation, including all the examinations of the Conjoint Board in Ireland of the Royal College of Surgeons and the Apothecaries' Hall, has been made by Mr. Wheelhouse. In each and all of these visitations Dr. Duffey has been associated as inspector, with the members of the Council acting as visitors. All the reports indicate not only the very great care with which the visitation and inspection have been conducted by the visitors and inspector, but they also give evidence of the wise, the just, and mature judgments which have been pronounced on the conduct of the several examinations. In speaking thus of the action of the visitors and inspector, it is but right to say that these gentlemen have been received with the greatest courtesy by the several licensing bodies, and that every facility has been afforded for their inquiries. The Council, having considered these several special reports which are submitted for the first time, will probably come to some determination as to the course which should be adopted in dealing with the whole number of these reports on the visitation and inspection of examinations. We have to consider, finally, the reports on five universities in England, on three in Scotland, on two in Ireland, and on the six licensing authorities.

The Reports of the Education Committee.

We have also to consider very valuable reports presented by the Education Committee. The first of these will be on the following examinations conducted by Indian, Colonial, and Foreign Universities and Colleges. The second will be on (1) the registration of students or pupils of practitioners; (2) the recognition of ordinary schools as places where Chemistry, Physics, and Biology may be taught; and (3) the correspondence between the Council, the branch Council in

Scotland, and the Scottish Universities Commission. In connexion with these reports I have obtained from the Registrar's office the following statistics, which I have put into the form of tables :—

A.—*Table showing the number of Medical Students registered in the three divisions of the United Kingdom respectively in the four quinquennial periods 1874–78, 1879–83, 1884–88, and 1889–93.*

Period.	Number registered in			Total.	Percentage.		
	England.	Scotland.	Ireland.		England.	Scotland.	Ireland.
1874–1878	3600	2138	1802	7540	47·75	28·36	23·89
1879–1883	4723	2653	2352	9931	47·59	28·73	23·68
1884–1888	4666	3268	1670	9604	48·58	34·03	17·39
1889–1893	4246	3212	1238	8696	48·82	36·94	14·24

B.—*Table showing the number of Medical Practitioners registered in the three divisions of the United Kingdom respectively during the three quinquennial periods 1879–83, 1884–88, and 1889–93.*

Period.	Number registered in			Total.	Percentage.		
	England.	Scotland.	Ireland.		England.	Scotland.	Ireland.
1879–1883	3233	1369	1045	5647	57·25	24·24	18·51
1884–1888	3753	2009	1149	6911	54·30	29·07	16·63
1889–1893	3496	2627	885	7008	49·88	37·49	12·63

Figures such as these, showing such a remarkable increase of students and practitioners in Scotland, and such a marked diminution of both classes in Ireland, claim most serious attention with a view of tracing the source of such an extraordinary difference, but I do not propose to do more here than submit the facts to the Council.

The Pharmacopœia Committee.

At the meeting of the Council in May, 1893, the Pharmacopœia Committee was authorised to enter into correspondence, through the Privy Council, with the India and the Colonial Offices, with a view of ascertaining in what degree, if any, the British Pharmacopœia could be better fitted than at present to meet Indian and Colonial requirements as regards important natural drugs and pharmaceutical preparations. The replies to the communication thus authorised (twenty-eight in number) have been very satisfactory. They have been received from the East and West Indies and from the colonies and dependencies in South Africa and Australia. A full statement concerning these communications will be submitted to the Pharmacopœia Committee by Professor Attfield, and subsequently they will be laid before the Council by the committee. I need hardly remind you of that with which we are all familiar—viz., the discussion which is taking place as to the relations between the mother country and the colonies, and between the various colonies themselves. It will therefore be regarded as a fortunate coincidence that at this moment the Council should have determined that the members of the medical profession in this country and those members of the profession practising in the remote regions in which British thoughts, British feelings, and British wants predominate, should become more closely bound together, and that the Council should be prepared to utilise the valuable suggestions which they have received from these dependencies, and thus to render the Pharmacopœia not merely English, but British in the widest sense of the term.

Reciprocity in Foreign Practice.

Copies of the report on reciprocity of medical practice with foreign countries were submitted to the Foreign Office through the Privy Council Office. It will be remembered that particular allusion was made in that report to the difficulties which existed in regard to the practice of qualified English practitioners, more particularly in Switzerland, where it was most desirable such difficulties should not exist. My attention has been recently called to this subject by several correspondents, more especially by one highly-qualified practitioner who, being desirous to practice at the health resorts in Switzerland, not only communicated in vain with Dr. Courvoisier, of the Federal Medical Board, but also with the Minister of the Interior. The Minister informed him that he was powerless in the matter, "as the Medical Board had expressed their determination to reserve all practice in the health resorts to themselves—a fact that they wished to be known." This statement, indicating a course of action alike selfish and all but heartless, should be borne in mind by British practitioners when deciding on the health resorts to which they should send their patients, with reference to the welfare and interests of those patients.

The Penal Cases.

We have to deal on this occasion, as on former occasions, with what are very properly called penal cases. Particulars of these cases will be placed in the hands of each member of the Council, with sufficiently full details to enable us to decide upon each case. I would wish to inform the Council that these cases do not comprise all those concerning which communications had been addressed to the Council since its last meeting. The cases amounted in all to the number of thirty-four, including consideration of what further steps should be taken against the General Council of Safe Medicine as a result of the prosecution and conviction of the herbalist, Steel, for the use of a colourable imitation of medical titles. All these cases were submitted to careful consideration, and ten were found to be of a character which did not fall within the statutory powers of the Council—for example, charges of ignorant and improper treatment and irregularities of professional practice. These cases being thus eliminated, there still remained twenty-three cases, which were brought before the Penal Cases Committee and were considered by them. The committee decided to recommend that nine only of these cases should be brought before the Council and submitted for their decision. There then remained fourteen cases in which, after consultation with the solicitor, it was decided by the committee that no further steps should be taken. There were two special cases in which individuals whose names had been removed from the Medical Register, and who had been deprived of their qualifications by the licensing bodies, still continued to use them. The solicitor would consult the Council as to what steps should be taken in these cases.

Mr. WHEELHOUSE in moving a vote of thanks to Sir Richard Quain for his address, congratulated him on his recovery from illness.

Mr. BRUDENELL CARTER seconded the motion, and it was cordially adopted by the Council.

PROCEEDINGS OF THE COUNCIL.

The Students' Registration Committee.

Sir DYCE DUCKWORTH moved: "That it is desirable to enlarge the Students' Registration Committee, and that for that purpose the names of the following members of the Council be added thereto: Dr. Tuke, Dr. MacAlister, Rev. Dr. Haughton." He explained that the present committee found it a great task upon them to discover the merits or demerits of the various universities, colleges, institutions, &c., throughout the world whose certificates were presented, and in view of this and what occurred in the course of last year he thought the committee should be enlarged in the manner proposed.

Mr. WHEELHOUSE seconded the motion.

Dr. BRUCE took the view that these inquisitorial functions should be performed by the branch councils and that some general rules should be devised for their guidance in order that there might be something like uniformity of practice.

Dr. PETTIGREW, taking the same view, said he was very much in favour of decentralisation in a matter of this kind.

Sir WILLIAM TURNER said that if Dr. Bruce moved an amendment declaring that the branch councils were the proper bodies to deal with the matter he would support him.

Dr. HERON WATSON reminded members that originally each branch council investigated the cases presented to it and the arrangement was not found to work well, there being a want of uniformity of action. In the light of the experience then gained the Council determined to put the matter into the hands of a committee, and he did not think it advisable now to return to the original state of things without careful consideration.

Dr. MACALISTER thought it would be a mistake to hand this work back to the branch councils.

Dr. BRUCE, seconded by Dr. PETTIGREW, then moved: "That the cases of ante-dating be referred to each branch council in which they arise, and after consideration by these branch councils they be referred to the Executive Committee for their decision."

After some further discussion it was agreed to pass Sir Dyce Duckworth's motion, on the understanding that when he moved the consequential alteration in the standing orders it would be open to Dr. Bruce to move an amendment.

Navy and Army Medical Service.

A number of tables were presented showing certain results of examinations for commissions in the medical staffs of the navy and army. Dr. HERON WATSON took exception to their form, and on his motion a remit was made to the Examination Committee to see whether it could be improved.

Applications for Restoration to the Register.

The next business was the consideration of an amendment in the standing orders in regard to the restoration of erased names to the Medical Register submitted by the Executive Committee pursuant to a resolution of May 25th last. The following standing order had been recommended by the Council's legal adviser:—

1. A person who holds a qualification entitling him to be placed upon the Medical Register, and whose name has been erased from the Medical Register by direction of the Council, may apply to the General Council for the restoration of his name. 2. The application shall be in writing, addressed to the General Council and signed by the applicant, and must state the grounds on which the application is made. 3. The statements in the application must be verified by a certificate in writing, to be given either by a justice of the peace or by a registered medical practitioner resident in the neighbourhood where the applicant is residing at the time when he makes the application. 4. On receipt of the application it shall be referred by the Registrar to the Executive Committee for consideration and report. Before the application is considered by the Executive Committee the Registrar shall, by letter addressed to the person or body (if any) on whose complaint the applicant's name has been erased, give notice of the application and of the time when the Executive Committee intend to consider the same, and invite such person or body to transmit for the consideration of the Executive Committee information or observations in reference to the application. 5. The Executive Committee shall consider the application, and may, if they think fit, adjourn the consideration to a future date, or require further evidence or explanations from the applicant. 6. The Executive Committee shall make a report to the General Council upon the application, embodying in such report such recommendations as the committe shall think fit to make, with the reasons for the recommendations. 7. The application and certificate shall be in the Forms 1 and 2 in the *Appendix*, with such variations as circumstances may require. Printed forms shall be kept by the Registrar, who shall supply them to intending applicants.

Mr. WHEELHOUSE moved that the standing order be approved.

Sir W. TURNER seconded.

Dr. GLOVER suggested that they should take the recommendations one by one, so as to let the Council have an opportunity of knowing a little more of what was being done in this very important matter.

The PRESIDENT said that if they altered these paragraphs it would be a very serious matter, because they had been deliberately settled by counsel.

The question being put from the chair, the Council decided to proceed with the standing order as a whole.

Dr. H. CAMERON said the first recommendation seemed to him to take no notice of a difficulty which had cropped up on several occasions. Suppose a registered practitioner had had his name erased, and that following immediately upon that all his qualifications were withdrawn by the body which originally issued them, and he was left without any qualification, might he still apply to the Council to have his name restored to the Register?

Sir W. TURNER said that if Dr. Cameron would look at the first recommendation he would see that the persons under this standing order who were to apply for restoration were persons holding qualifications entitling them to be on the Register, so that such a case as he referred to did not come within the standing order at all.

Dr. CAMERON said it seemed to him that there was a possibility of very great injustice. In the case of a man who might have been guilty of a comparatively slight misdemeanour, or who might have been removed by only a mere majority of the Council—and that had occurred more than once—it might happen that his qualifications were qualifications which were legally removable, and he knew the body that he represented here had once or twice had great difficulty as to the course of action they should take. On one occasion he asked them to delay their decision for a year. They did so, and this Council a year afterwards restored the name to the Register. Yet if in the meantime that body, the Faculty of Physicians and Surgeons of Glasgow, had withdrawn their qualification the Council could not have restored the name. Then in another case, a practitioner might be guilty of something more reprehensible, but he might be a graduate of a University, and none of them had the power to withdraw their degree, and such a man remained in the position of being able at any time to apply to have his name restored, and by a chance vote he might obtain restoration.

Sir W. TURNER observed that that very question was discussed by the Executive Committee, and he thought the feeling rather was that it was for the authorities granting the qualification on which the person removed had been registered to consider whether the offence was such as to lead them at once to remove the name from their register or to grant delay, and thus tide the matter over for a time, so that after the person had gone through a period of penance, and then applied to the Medical Council for restoration, he should not be met with the statement, "You have no qualification." It seemed to him it was rather a question for the medical bodies themselves than for this Council.

Dr. CAMERON: But they have not the evidence before them.

Sir W. TURNER rejoined that they had a representative on this Council, who was supposed to be in possession of the evidence laid before the Council.

Dr. CAMERON said the documents were marked private.

Sir W. TURNER imagined they were not so private but that a body which was represented would have a right to call for them in the event of that body taking into consideration whether they should remove a name from their roll. He should say these documents were quite open, and further, if that body were to ask the General Medical Council officially to furnish them with the papers on which they had proceeded, that it would be within the power of the registrar, and even his duty, to furnish them. With regard to the question as to the difference which they found between universities on the one hand and corporations on the other, that was to be raised upon a motion by Dr. Glover.

Mr. TEALE inquired whether there was not one body which now removed from its own roll anyone who was not on the Register of the General Medical Council?

Dr. CAMERON: That is the case with the Royal College of Physicians of Edinburgh.

Dr. TUKE: That is so. *Ipso facto* a man is removed from our list if he is removed from the Council's Register.

Dr. GLOVER: May I ask if they have any power to restore the diplomas?

Dr. TUKE: None.

Mr. BRYANT said there were offences which this Council had to meet, or might meet, which the laws of their different colleges and universities would not allow them to deal with in the same way. Covering, for instance, was rightly looked upon by the Council as an offence. But at his own college they did not remove for covering; they allowed the names to stand, so that if a man sought restoration by the Council he would be able so far as they were restored.

Dr. HERON WATSON remarked that when the Council first took names off they were extremely anxious that corporations should *ipso facto* allow these names to drop. That was strongly objected to by several corporations; but, acting on strong pressure brought to bear on them, various corporations in Scotland saw fit to pass a resolution carrying out the wish of the Council. But if a name once erased could never be restored, which was apparently the legal view of the matter, he thought they should need to consider the case for themselves, and not *ipso facto* on the action of the Council. It appeared to him it would be safer, before coming to a conclusion, to consult the different bodies on this matter, so that they might not be led into carrying out procedure which they might repent of afterwards.

Dr. MACALISTER thought the course of the discussion showed how desirable it was that they should resolve themselves into committee and discuss the proposals of this standing order one by one. They were told that bodies had better take no notice of what the Council said for fear it was irrevocable. Nothing more prejudicial to the prestige of the Council could be said.

Dr. MCVAIL supported this course. The Council certainly could not put back a man who had lost his qualifications, and it could put back a man who still retained them. This proposal did not in any way alter the custom of the Council, but simply put the matter into a position of order. He thought it was very well that the discussion had brought out this particular hardship in the cases of men whom corporations, simply because the Council struck them off the Register, also removed, without considering them, from their rolls.

The body which Dr. Hector Cameron represented, and of which he (Dr. McVail) also was a member, undoubtedly had put men off their register, and he rather thought it had been inclined to trust pretty much to the opinion of the General Medical Council. The custom of the Council had been to readmit men to the Register on certain conditions, but if anybody took a name off their roll, and that happened to be essential to a man to be on the Medical Register, then undoubtedly that body had gone very much further than the Council had gone in the way of punishing that man, because the only way that man could get on the Register again would be by going to a licensing authority and passing his examinations again.

Dr. MACALISTER: There is a standing order against his being admitted to examination.

Dr. MCVAIL: Nobody goes by that standing order. But I think this matter should be gone into very carefully, and I second the course which Dr. MacAlister has suggested.

On the question being put from the chair it was resolved to go into committee of the whole Council.

On Paragraph 1 being submitted for approval,

Sir W. FOSTER said the way it read seemed to him rather like an invitation to people to apply to be restored. He did not think they should seem to say that, and moved the insertion of "when" as the first word of the paragraph, with a view to subsequent amendment.

Dr. MACALISTER moved that the paragraph should read:—"If any person whose name has been erased from the Medical Register by direction of the General Medical Council, and who still possesses a qualification entitling him to be registered, makes application to the Council for restoration of his name to the Register, the following shall be the mode of procedure."

Mr. BRUDENELL CARTER seconded the proposal, which was accepted by Sir W. Foster, and agreed to.

Paragraph 2 was agreed to without discussion.

On Paragraph 3,

Dr. MACALISTER inquired what was the meaning of the word "verified"?

The REGISTRAR (Mr. Miller) said he believed the legal course was to take an affidavit under a statute of William IV.

Dr. HERON WATSON thought they should have information covering more ground than the paragraph seemed to provide for.

Dr. MACALISTER said the question was a matter of principle. He moved that the word "supported" be substituted for "verified."

The amendment was rejected.

Dr. GLOVER wished to move that the word "and" should be substituted for "or," so that they might have the testimony both of the justice of the peace and the medical practitioner.

The paragraph was put and agreed to without notice being taken of this proposal. Subsequently Dr. Glover, finding the matter passed, entered his protest against the acoustic properties of the hall, which prevented what was being transacted from being heard at his end of the table.

Paragraphs 4, 5, 6, and 7 were adopted without comment, and after some conversation upon the Forms they were also approved.

Dr. TUKE moved an additional paragraph to be inserted after Paragraph 4, which was seconded by Dr. MACALISTER, and, after a brief conversation, was agreed to in the following form:—"That it is desirable that the licensing bodies whose qualifications were originally held by the applicant when his name was erased should be informed of the application before it is dealt with by the Council."

The standing order as amended was ordered to be reported to the Council, the opinion being expressed that Mr. Muir Mackenzie, Q.C., the legal adviser, should be present when the matter was dealt with in Council, other amendments being intimated by Dr. Glover and Dr. Heron Watson.

The Council resumed.

Presentation of a Bust of the late President.

The PRESIDENT moved: "That the best thanks of the Council be presented to Mrs. Marshall for the valuable and acceptable present of the bust in marble of our late esteemed and venerated President."

The motion was at once agreed to, and the Council adjourned.

WEDNESDAY, NOV. 28TH.

The Council resumed, the President, Sir RICHARD QUAIN, in the chair.

The Study of Bacteriology.

Dr. PHILIPSON moved: "That in every course of professional study and examinations bacteriology be contained." He urged his motion on the ground of the importance of medical students being, as it were, armed at the conclusion of their course with the latest weapons in modern science. Having regard to the great advance made in bacteriological science and the influence of that upon medical practice, it seemed to him that the time had arrived when bacteriology might very properly be added to the curriculum of medical study. He thought every student of medicine should have the opportunity not only of being instructed in the principles of bacteriology, but should also have the advantage of supplementing that knowledge with practical instruction in it. This was a matter of the greatest importance, because without such a knowledge there were many problems which could not be demonstrated. Bacteriological laboratories had been established in various schools in the country, and he felt certain that the number would increase. The instruction would be highly interesting to the students, and he felt that they would not hesitate to avail themselves of the opportunities which might be placed at their disposal.

Dr. MCVAIL had great pleasure in seconding the motion. He thought it was now time that the Council should give a direction or recommendation to the medical schools of the country as to the question of bacteriology. In the school with which he was connected they had a bacteriological laboratory, but undoubtedly the difficulty of getting men to come in and go to work was very considerable as it was not a recognised part of the curriculum. It was quite certain that the subject of bacteriology was one of the most important of all the subjects which came before the profession. This department of investigation was not only of use in diagnosis, but was going to be of practical use in treatment. He thought, therefore, as the Council had provided five years for the medical curriculum that nothing could be more important than that the Council should express its opinion that study of bacteriology was essential to the student. It was a study which could not be very well attended to afterwards. Unless a man became familiar with such a study in a laboratory it was not by any means easy for him to take it up in the course of his daily professional work.

Mr. TEALE thought it most undesirable at the present time to add anything to the curriculum. He felt, as many others did, that the present curriculum was overloaded both with subjects of study and of examination. They had recently established a five years' course, and they did not know what the result would be on the students. Whatever was necessary for a student to know in respect of bacteriology would be taught him in his regular course of medicine and surgery, and to require that the average student should be made a bacteriologist was simply to impose upon them a waste of time.

Dr. KIDD thought that to introduce a new course of lectures and instruction would throw an unnecessary burden on the students and would interfere very seriously with practical studies. He could not imagine any good course in which the subject of bacteriology was not sufficiently considered. He hoped the Council would not sanction this proposal, and in order to put the matter to the test he moved the previous question.

Dr. GLOVER said he should give a hearty vote in support of Dr. Philipson.

The PRESIDENT pointed out that upon the previous question being moved the vote must be taken without further discussion.

Dr. GLOVER bowed to the decision, but protested against it.

The previous question was then voted by a large majority.

Preliminary Examinations in General Education.

Sir DYCE DUCKWORTH moved: "That Clause 4 of Section IX. of the Standing Orders of the General Medical Council shall read as follows: 'All applications for special exceptions to the regulations of the Council in regard to Preliminary Examination in General Education shall be addressed to the Registrar of the General Council, who shall submit them to a committee of six (instead of three, as at present) of its members appointed by the Council.'"

Dr. BRUCE, who had an amendment on the agenda, did not press it, and the motion was agreed to, it being explained that on the previous day the Council assented to the proposal to increase the number of members on the Students' Registration Committee by three, whose names were then given.

The Examinations of the Apothecaries' Hall of Ireland.

The next business was to consider a communication from the Apothecaries' Hall of Ireland, dated July 9th last, enclosing a copy of a notice received from the Royal College of Surgeons in Ireland, stating their intention to withdraw from the combination with the Hall for the examination of medical students on July 1st, 1895, and asking power to conduct, after the cessation of the scheme, examinations independently if the Council would assist them by appointing Assistant Examiners in Surgery &c. under whatsoever regulations the Council and the Act might consider judicious and right. A further letter had been received from the Apothecaries' Hall, dated Nov. 23rd, stating that the directors at a meeting that day resolved to petition the General Medical Council to appoint two Examiners in Surgery under the provision of the Medical Act, 1886, as their conjunction with the Royal College of Surgeons will cease in July, 1895. When permission was granted the Court will be prepared to submit two names for approval of the Council, or receive two names from the Council if so directed.

Sir W. TURNER moved: "That as regards the communications from the Apothecaries' Hall of Ireland of July 9th and Nov. 23rd, 1894, the Council cannot take the questions raised into consideration until after it has received from the Examination Committee the report on the Conjoint Examination of the Royal College of Surgeons and Apothecaries' Hall of Ireland, recently visited." He submitted that there was no hardship in postponing the matter, as the existing combination did not cease until July, 1895.

Mr. WHEELHOUSE seconded the motion.

Dr. MACALISTER said the Council was not empowered to appoint examiners until they were satisfied the Apothecaries' Hall had failed to enter into a combination with another body.

Mr. C. MOORE said the Apothecaries' Hall were naturally anxious to be prepared with examiners when July 1st came. They had laboured under considerable difficulty in conducting the examinations, and he was prepared, if in order, to enter into the matter.

Sir DYCE DUCKWORTH asked whether the Apothecaries' Hall had made any attempt to join any other body in order to carry on a joint examination.

Mr. C. MOORE said they had done so on a former occasion, but not upon this occasion.

Dr. HERON WATSON said it did not follow that the severance of the Royal College of Surgeons would prevent the examination going on. He thought it was very important that the Council should have an opportunity of reading the report of the examiner before they were called on to answer the question put to them by the Apothecaries' Hall.

The PRESIDENT said he thought the proposal of Sir W. Turner was a very reasonable and proper one. Upon this Conjoint Board they should have to hold an inquest. It would not be upon a living body, but something like a coroner's inquest. Then they should require to have another inquiry as to the Phœnix which would rise from the ashes—the question of the new body they should have to settle in May.

The motion was agreed to.

Misuse of Medical Titles.

The Executive Committee presented a report in regard to the following resolution passed by the Council in May last: "That it be referred to the Executive Committee of the Council to obtain legal advice as to what means can be adopted by the Council to stop the practice of persons continuing to use titles attached to diplomas of which they have been deprived, and which no longer appear on the Registers."

The following report on the subject had been made by the solicitor for the Council:—

"(a) If a person wilfully uses the title of a medical diploma which he does not possess he can be prosecuted under Section 40 of the Medical Act (1858). (b) Such a person might also in some instances be prosecuted under the laws against false pretences and false statements. (c) The body which originally conferred and afterwards cancelled the diploma might take proceedings in a civil court to prevent the person continuing to use the diploma. The committee upon this recommended the Council to authorise the solicitor to take proceedings against persons assuming qualifications of which they have been deprived by the licensing authorities, and whose names have been erased by the Council from the Medical Register."

The report was approved.

Amendment of the Medical Act.

In May last the Council passed a resolution requesting the Executive Committee to consider and report at a future session of the Council on the proposals for the amendment of the Medical Act, 1858, contained in the communication received and entered on the minutes. The committee presented the following report:

The following report on this subject has been supplied by the solicitor to the Council:—"The usual course where a public body desires amendments in the Acts under which it is constituted, or from which it derives its powers, is to communicate with the Minister by whose department the legislation was submitted to Parliament. It is undesirable for the public body itself to apply to Parliament. It should submit its recommendations to the Government first. The amendments for which the Council desire consideration should therefore be submitted to the Lord President of the Council."

Dr. GLOVER asked when the Council was likely to receive any report from the Executive Committee as to the amendments in the Medical Act.

Sir W. TURNER said this was only a question of procedure, and not one of recommendation.

Dr. GLOVER reminded the Council that at the last session certain suggestions for the amendment of the Medical Acts were referred to the Executive Committee, and he saw no trace of that subject or any attempt at a response on the programme. He should like to know what had been done.

The PRESIDENT said this resulted from a communication made by the British Medical Association, and the advice their legal advisers gave upon the matter was to act in the form here proposed. The Council could not take up a report from an outside body.

Mr. BRUDENELL CARTER said the Executive Committee had been requested to do a particular thing, and they had not touched it with the tips of their fingers.

Sir W. TURNER admitted that the matter contained in the resolution addressed to the Committee had not been carried out, but what was before the Council was a suggestion as to the mode of procedure by the Council in the matter.

Dr. GLOVER proposed that the subject be recommitted, and that the Executive Committee be requested to favour the Council with an early report on the matter. He was afraid they had just discovered accidentally that the Executive Committee had been sound asleep on this important question. In fact, it was not aware that there was such a duty devolving upon it. He could only attribute it to the somewhat rushing haste with which the business of this Council was done occasionally.

The PRESIDENT thought the whole matter lay in the omission of the words stating that this was a report from the Committee.

Dr. HERON WATSON thought there was no necessity for recommittal, as the Committee were requested to report "at a future session of the Council," and the matter therefore still lay with the Committee.

Dr. GLOVER said the Committee were not requested to consider the mode of procedure, but amendments of the Medical Act upon definite proposals which were submitted to the Council by the British Medical Association. Was this a mere interim report on the mode of procedure and not one on the proposals for the amendment of the Act?

Mr. WHEELHOUSE seconded Dr. Glover's motion for recommittal of the matter for further consideration, and this was agreed to by a large majority.

Consideration of Reports.

Sir W. TURNER moved: "That if the Council should determine to receive, during the present session, reports by the Education and Examination Committees, Standing Order Cap. IX., Clause 2, should be suspended in so far as it limits the presentation of such reports to the Council at its meeting in May."

The motion was seconded by Mr. WHEELHOUSE and agreed to.

Preliminary Examinations Abroad.

Dr. BATTY TUKE, on behalf of the Education Committee, presented a report on the preliminary examinations conducted by Indian, colonial, and foreign universities and colleges recognised by the General Medical Council. It appeared from it that the Committee, having carefully considered the regulations of the various bodies, had to report that in the majority of instances they appeared to be satisfactory. The requirement which was not complied with by the large majority of the bodies was that demanding that all the subjects of examinations should be passed at the same time. Only one body had protested against this regulation, alleging that its examination was exceptionally severe; but the Committee had not been convinced that there was sufficient ground for admitting this claim. No objection had been

raised on this point by any Indian or colonial university. In their recommendations the Committee set forth at length the list of Indian, colonial, and foreign examining bodies, whose examinations in general education were recognised by the Medical Council as qualifying for registration as medical or dental students, and asked that it should be intimated to each of the Indian and colonial bodies that no certificate will be accepted after Oct. 1st, 1895, by the registrars unless it showed that the examination had been conducted by, or under the authority of, the body granting it, included all the subjects required by the Council, and stated that all the subjects of examination had been passed in at one time; and that the registrars should be instructed to furnish copies of the form of certificate appended, to the dean, secretary, or other responsible officer of each body, for the purpose.

The report and recommendations of the Committee were adopted.

Dental Qualifications.

Dr. TUKE presented the report of the Education Committee on the codification of the existing regulations of the General Medical Council applicable to dental qualifications. The report, in addition to presenting a codification of the existing regulations of the Council in respect to dental education and supplying in an appendix the regulations of the British dental licensing bodies, made these recommendations in reference to the recommendation of the Council for twelve months' attendance on surgical practice:—

1. That the attention of the Royal College of Surgeons of Edinburgh be called to their regulation (p. 12) requiring "attendance on the practice of surgery, and clinical lectures on surgery, at a recognised hospital ..... six months."
2. That the attention of the Faculty of Physicians and Surgeons of Glasgow be called to their regulation (p. 13) requiring attendance on "the practice of a recognised surgical hospital, with clinical instruction, not less than six months."

Dr. HECTOR CAMERON said the body whom he represented was totally unaware that the Council required twelve months' attendance, and there was no object to be served in their making it six months.

Dr. MACALISTER doubted if many members of the Council were aware of the recommendation.

In the course of some conversation it was strongly urged that the Council should transmit to everybody concerned copies of its requirements or regulations when they were issued.

The report and recommendations were approved, with the addition of words to the effect that the two Scottish bodies be requested to bring their regulations into harmony with the recommendations of the Council.

English Conjoint Board: Final Examinations.

Sir DYCE DUCKWORTH, on behalf of the Examination Committee, presented the reports by the visitor and inspector of examinations (Mr. Brudenell Carter and Dr. Duffey) on the final examination of the Conjoint Board in England and the examination in surgery of the Royal College of Physicians in London, together with the remarks by the bodies visited and the report thereon by the Examination Committee. The reports of the Committee are as follows:—

1. "On the final conjoint examination of the Conjoint Examining Board in England, the visitor and inspector report that this examination is 'a good one and "sufficient." They consider that the time devoted to the examination in clinical medicine is much too short, and that ten minutes for each patient is hardly a sufficient time in which to investigate many medical cases. They are strongly of opinion that candidates should be required to furnish a written report of at least one case. The same remarks are made in respect of the examination in clinical surgery. The visitor and inspector point out that it appears possible for a candidate to recover ground lost by bad answering at the clinical examination, and direct the attention of the Committee of Management to this as being contrary to a resolution of the General Medical Council, which declares that the marks for the written and oral examinations in medicine and surgery should not exceed those for the clinical and practical portions of the examination. The absence of any examination in operative surgery and of a special examination in ophthalmic and aural surgery is noted. The system of marking is condemned, and it is recommended that all the marks should be raised, and that those for the clinical examinations should equal those for the practical and for the oral examinations taken together. A scheme for this purpose is appended to the report. The visitor appends some special remarks of his own. He believes that this examination leaves much to be desired in the way of adequate protection for the public, and that the system of marking is decidedly too indulgent. He does not believe that the standard falls below that of other examinations, but that in any case it is too low. He notes in some instances great deficiencies of intellect and of moral sense, which are calculated permanently to militate against the power of the candidate to discharge professional duties. He advises that all such candidates should be weeded out, either by limit of age, or by limit of time, or by a certain number of rejections. In reply, the Committee of Management states that it takes note of the report of the visitor and inspector that the Conjoint Examination of the two Colleges is 'a good one and "sufficient,"' and has no observations to offer.

2. "On the examination in surgery of the Royal College of Physicians of London, the visitor and inspector report that this examination is not by itself 'sufficient' to guarantee the knowledge and skill requisite for the efficient practice of surgery. They recommend that written reports of clinical cases should be required, and note the absence of examination in operative surgery and of special examination in ophthalmic and aural surgery. They further note the absence of any separate oral examination in surgery or in surgical pathology, and comment on the fact that no specimens of surgical diseases or injuries were shown or examined upon. (It is to be noted that for this examination only three candidates appeared, of whom two were rejected.) In reply, the Royal College of Physicians intimates that whereinsoever this examination may have hitherto differed from the conjoint examination in surgery it will in future be made precisely similar. The Examination Committee are pleased to state that the visitor and inspector report that the examination conducted by the Conjoint Examination Board in England is a good one and sufficient. Suggestions are made as to improvements in the methods of, and additions to, the subjects of examination. The Committee reserve consideration of these suggestions until they present their complete report on the whole series of final examinations. As regards the examination in surgery conducted by the Royal College of Physicians, the registrar of the College has assured the Committee that the defects pointed out by the visitor and inspector will be remedied, and the examination in surgery assimilated to that of the Conjoint Board."

Dr. GAIRDNER protested against the discussion being continued now, saying that he and other members of the Council had not been allowed time to read the report.

Dr. GLOVER moved that the further discussion of the report be deferred until next day.

Sir DYCE DUCKWORTH moved that the Council go into committee to consider the report.

The PRESIDENT thought it would be unbusiness-like to treat this report exceptionally.

Sir WALTER FOSTER protested against the whole manner in which the Council was called upon to discuss the reports of its committees. All these reports ought to be in the hands of members at least a week before the meeting of the Council, in order that they might study their contents.

After a good deal more discussion it was decided to defer this report, and the reports of the final examinations of the Universities of Edinburgh, Glasgow, and Aberdeen, until the next day.

Death Certification.

Sir WALTER FOSTER moved: "That the General Medical Council feels obliged to reiterate its opinion that it is most desirable that every registrar of births and deaths should be supplied by the Treasury with a copy of the Medical Register in order that the registrar may be able to ascertain whether the person certifying the cause of death is a registered medical practitioner." He thought it was well that the Council should hammer away at this matter until they got what they desired. It was important, in view of the complaints being made in public of the difficulties of death registration and certification, that the registrars should have every opportunity offered them of finding out who were qualified men, and that they should have no excuse for accepting certificates from men who were not upon the Register. He did not think that the expense would be so great as was supposed.

Mr. WHEELHOUSE seconded the motion, saying that he thought the Council had a perfect right to call upon the Government to meet the expense of distribution.

The PRESIDENT reminded the Council that they had already approached the Treasury on this matter and got a distinct refusal. Perhaps, however, they might be more fortunate on this occasion, when they had Sir Walter Foster in the Government.

Dr. BRUCE said he would like to see the Register issued oftener and made cheaper and more popular.

The motion was then agreed to.

The Universities and their Graduates.

Dr. GLOVER said he desired to direct the attention of the Council to the inadequate state of the law in regard to medical graduates found guilty of infamous conduct in a professional respect, and to move, "That it be an instruction to the Executive Committee to bring this subject to the notice of the Lord President." It was within the knowledge of the Council that graduates of universities, when found guilty of infamous conduct, were in a very different position from that of other men on the Medical Register, because even if this Council erased their names they still retained their degrees. He found in the Council's list of erasures the names of seventeen persons with university degrees. Of these three were foreign graduates, two being American, and the third a

lady graduate of Zurich. The other fourteen were graduates of the universities of Edinburgh, Cambridge, Aberdeen, Glasgow, and elsewhere. There was another case that the law did not meet, and that was the case of a graduate who had the wisdom to keep off the Medical Register. Such a case had come under his notice—the case of a graduate of Aberdeen University who had been issuing most discreditable pamphlets and advertisements. This man could, in the present state of the law, neither be noticed by this Council nor by his university. He did not think the universities should rest content with this state of things. In the case of the Scotch universities, if they had no power to act at present, they should make application to the Scottish Universities Commission for power, and see that the matter was attended to.

Dr. ANGUS FRASER, in seconding the motion, repudiated the suggestion that the University of Aberdeen had no wish to take up cases of this kind. On the contrary, the case to which Dr. Glover had referred had given a great deal of annoyance to the University of Aberdeen, and if it had been in their power they would have struck off the name of this man from the list of graduates long ago. He might mention that the University Court had made a representation to the Scottish Universities Commission asking power to strike off men. If this power were given to Aberdeen, he supposed it would be given to the other Scottish universities.

Sir WILLIAM TURNER said that the great difficulty of the universities had been how to get this power. With the Commission now sitting in Scotland with very large powers, the University of Aberdeen had asked it to move in the matter, and the University of Edinburgh was doing the same thing. The attention of the Scottish universities had been quite as alive to this matter as was Dr. Glover, and they were taking such steps as they thought advisable in the circumstances. He should like also to point out that in the universities they had no machinery for making inquiry. His own feeling was that perhaps they might go so far as to accept a conviction in a criminal court of law as authorising them to strike off a graduate, or a decision of this Council that a man had been guilty of infamous conduct in a professional sense, if they were convinced that this Council had inquired into the case with sufficient care. Another point was that this power of removal must not be confined to medical graduates, but be extended to all classes of graduates.

Dr. GAIRDNER said he was very much at one with Sir William Turner. He would like to know what court in the University they could select for initiating and pursuing inquiry into the conduct of a graduate. Neither the Senate nor the University Court could be regarded as adequate for such a function.

Dr. HERON WATSON advised the Council not to act hurriedly in this matter, because there were a great many points to consider. For instance, if they took away a man's degree they could not restore him to the Medical Register, yet this Council sometimes took a merciful view of cases that came before them. With the corporations it was becoming a burning question whether when this Council erased a practitioner's name from the Register they should, as a matter of course, withdraw his qualifications.

Dr. CHURCH said that in the case of his university, Oxford, they had power—it was a very cumbrous power—over men who were still upon its books, but these were only a very minute number. He was not very confident about the exact facts of the case, and he had asked for information.

Sir JOHN BANKS, speaking for the Irish universities, said they were most anxious to have the power of removing graduates who had been found guilty of misconduct. At present they had no such power, and he was entirely of opinion that they should possess it.

Dr. ATTHILL thought the universities should be put in the same position as the corporations.

Dr. MACALISTER said that this subject was engaging the earnest attention of the authorities of the University of Cambridge, and at the present moment the advice of their highest legal advisers was being taken.

Sir WILLIAM TURNER suggested to Dr. Glover that his purpose had been served by the important debate that had taken place, and that he need not press his motion.

Dr. GLOVER said he quite agreed with that view, and felt greatly pleased with the manner in which the subject had been treated.

The motion was accordingly withdrawn, and the Council then adjourned.

THURSDAY, NOV. 29TH.

The Council resumed, Sir RICHARD QUAIN being in the chair.

English Conjoint Board Final Examination.

The Council resumed consideration of the report by the Examination Committee on the visitor and inspector's report on the final examination of the English Conjoint Board and the examination in surgery of the Royal College of Physicians in London.

The Council having resolved itself into committee,

Dr. PETTIGREW called attention to the following sentences in the observations of the visitor and inspector: We have already stated that we consider the Oral and Practical examination in medicine to be perfectly satisfactory with the exception of the absence of any examination in Operative surgery on the cadaver, and of a special examination in ophthalmic and aural surgery, the same remark might be made of the examinations in surgery." He submitted that neither operations on the cadaver nor special examinations in ophthalmia and aural surgery were required, and urged that the words referring to them should be deleted, or that a statement should be inserted to the effect that the Examination Committee did not endorse them.

Mr. BRUDENELL CARTER said that the duty of a visitor was to place before the Council an accurate picture of what an examination was. As they had said in their report, it would be the business of the Council, on the report of the Examination Committee, sometime to express its opinion as to whether these omissions are to be approved or whether a change was to be asked for. In the meantime the suggestion that anything should be taken out of a report which was a mere description of what happened in an examination—that the report should be emasculated—seemed to him the most extraordinary proposition he had ever heard at that table.

Dr. W. MOORE said there had been no difficulty in conducting these examinations in the University of Dublin.

Dr. PETTIGREW said he did not see how a thing could be made an omission if it was not required.

On the motion of Dr. LEECH the paragraph beginning "The visitor appends some special remarks of his own," was struck out of the Committee's report on the conjoint examination.

Dr. GLOVER asked where the examination in clinical medicine took place.

Sir DYCE DUCKWORTH: In the Examination Hall.

Dr. GLOVER thought it was a point for consideration how far they should regard the clinical examination satisfactory in any place except hospitals. The point he wished to direct attention to, however, was the time allowed for the clinical examination of students. He submitted that to expect a student in all the excitement and disturbance of an examination hall to arrive at a finished clinical examination in ten minutes was unreasonable. He thought the Council should declare strongly that this was an inadequate amount of time. He deprecated interference with the form of the reports as they reached the Council.

Sir DYCE DUCKWORTH, answering Dr. Glover's criticisms, said that the candidates were taken to a well-selected series of cases, and spent, as a rule, ten minutes at each case. He had examined upon the Board for many years, and could speak for the thoroughness and efficiency of the examination. The rule was to have two cases for each candidate, but if there was any difficulty with a candidate he might be shown four or five cases. They did not expect the candidate to make an elaborate diagnosis, but to show that he had learned clinical methods sufficiently, and he submitted that twenty minutes were adequate for the average pass man.

Mr. BRYANT said it was impossible in London to take candidates to the bedside.

Dr. MCVAIL asked whether it was the case that a man might get the diplomas of the two Colleges although he did not secure a single mark in his clinical examination.

Mr. BRYANT replied that in clinical medicine three marks were the minimum. It was perfectly true, however, that in the theoretical point of view a man who got a single mark in clinical surgery might get through by means of success in other subjects; but he might comfort Dr. McVail by saying that such a thing had never happened. He agreed that the matter should probably be reconsidered.

Dr. GAIRDNER said he was probably the oldest clinical examiner in Her Majesty's dominions, and the impression this report made on him was that clinical examinations in

this case did not receive the time they deserved or the importance.

Sir JOHN BANKS said that in the University of Dublin the greatest attention was paid to the clinical examination, and the widest limit of time was given. They looked upon it as above all the test of when a man might be sent out on the world as a safe practitioner.

Dr. GLOVER said he had intended to propose a motion, but after the discussion he should not do so. He was, however, rather disappointed with the defence made by Sir Dyce Duckworth as to the short time allowed and the hurried examination.

Sir DYCE DUCKWORTH: I deny that it is a short time and that it is hurried.

Dr. GLOVER said that then Sir Dyce Duckworth was at variance with the visitor and inspector and also Professor Gairdner as to that. He said they did not want so much to test a man for his knowledge of cases as for his methods; but if it was impossible in the time to ascertain a man's knowledge of cases, it was still more impossible to find out whether he was a methodical man. The defence was more damaging than the original charge. However, the report on the Conjoint Board was so creditable to that body, and they had such respect for the colleges that formed it, that he should not move the resolution he had formulated.

The report was then adopted.

Final Examinations of Edinburgh University.

Sir DYCE DUCKWORTH then presented the report of the visitor and inspector of examinations (Mr. Bryant and Dr. Duffey) on the final examinations in medicine, surgery, and midwifery of the University of Edinburgh, together with the remarks by the body visited, and the report thereon by the Examination Committee of the Council. The visitor and inspector reported that the final examinations for the degrees of M.B. and Ch M. were most satisfactory and "sufficient," and they specially commended the system of clinical reports on cases in the clinical examination, and noted that these were of a higher order than many required by other examining bodies. The Examination Committee expressed their pleasure to find that the reports of the visitor and inspector were so satisfactory.

The report was adopted without discussion.

Final Examinations of the Glasgow University.

The report of the Education Committee upon the reports of the visitor and inspector (Drs. MacAlister and Duffey) on the final examinations in medicine, surgery, and midwifery of the University of Glasgow, together with remarks by the body visited, was then presented. The visitor and inspector reported that the final examinations of this university were "sufficient," but they recommended changes in the method and standard of the examination in medicine in order to bring it up to the level of the examination in surgery.

(We shall publish the remainder of Thursday's proceedings in our next issue.)

Medical News.

SOCIETY OF APOTHECARIES OF LONDON.—At a recent examination the following candidates passed in the subjects indicated:—

Surgery.—W. Allingham, St. George's Hospital; M. Carter, Charing-cross Hospital; R. W. S. Christmas, Charing-cross Hospital; E. E. Dufty, Sheffield; G. W. Gostling, University College; R. Jones, London Hospital; H. A. Julius, St. Thomas's Hospital; G. Lowsley, St. Bartholomew's Hospital; R. W. Middleton, Leeds; H. W. Ramsay, St. Mary's Hospital; W. L. Roberts, St. Mary's Hospital; F. E. Saunders, St. Thomas's Hospital; G. A. Simpson, London Hospital; A. M. Thornett, Royal Free Hospital; E. A. Tudman, University College.

Medicine, Forensic Medicine, and Midwifery.—T. D. Bell, University College; A. K. Gordon, St. Mary's Hospital; G. W. Gostling, University College; A. W. Haines, Birmingham; T. S. F. Hudson, Birmingham; A. F. Lovett, London Hospital; W. E. Stanton, London Hospital; F. H. R. J. A. Walker, St. George's Hospital.

Medicine and Midwifery.—R. G. Worger, Guy's Hospital.

Medicine.—A. L. M. Churchill, Westminster Hospital.

Forensic Medicine and Midwifery.—W. Sutcliffe, Birmingham.

Midwifery.—F. W. Mawby, Guy's Hospital; A. M. Thornett, Royal Free Hospital.

To Messrs. Allingham, Carter, Christmas, Dufty, Gostling, Haines, Hudson, Jones, Julius, Mawby, Stanton, Tudman, Walker, and Miss Thornett was granted the diploma of the Society entitling them to practise medicine, surgery, and midwifery.

ROYAL COLLEGE OF SURGEONS IN IRELAND: FELLOWSHIP EXAMINATION.—The following gentlemen, having passed the necessary examination, have been admitted Fellows of the College:—

Bate, Abraham William (Dublin), L.R.C.S.I., 1860, &c.
Cleary, Michael Richard (Limerick), L.R.C.S.I., 1882, &c.
Cotter, Jeremiah (Cork), M.Ch. Q.U.I., 1880, &c.
Fergusson, James Hugh (Donegal), L.F.P. & S. Glasg., 1880, &c.
Joynt, Richard Lane (Dublin), B.Ch. Univ. Dublin, 1890, &c.
Lawless, George Robert (Sligo), L.R.C.S.I., 1879, &c.

FOREIGN UNIVERSITY INTELLIGENCE.—*Chicago (College of Physicians and Surgeons):* Dr. G. F. Butler has been appointed Professor of Materia Medica.—*Bonn:* Dr. Dresser, *privat-docent* in Pharmacology, has been granted the title of Professor.—*Munich:* Dr. G. Sittman has been recognised as *privat-docent* in Internal Medicine.—*Prague (German University):* Dr. Winternitz has been recognised as *privat-docent* in Dermatology.

THE death is announced, at the age of seventy-two, of Dr. John Chapman, the proprietor and for forty years editor of the *Westminster Review*. Dr. Chapman's name will probably be more familiar to our readers as an advocate of the treatment of sea-sickness by ice-bags.

LITERARY INTELLIGENCE.—Messrs. Whittaker announce the issue, early in December, of the "Windsor Peerage," revised by the editor of Dod's "Parliamentary Companion."—Dod's "Companion," which will be ready early in January next, has had the advantage of a thorough revision of the section on Parliamentary Terms and Procedure by Sir Reginald Palgrave.—Her Majesty the Queen has been graciously pleased to accept with thanks a copy of Mr. Henry Lake's "Personal Reminiscences of the Earl of Beaconsfield."

AN ACT OF HEROISM.—While Mr. Mark Ringwood Rich, L.R.C.P. Edin., &c., says the *Lincolnshire Free Press*, was driving across Crowland Wash, Lincolnshire, he saw a lad fall from the Fen Bridge into the River Welland, which being in flood was about ten feet deep. Mr. Rich, removing his overcoat, plunged into the water, seized the drowning lad, conveyed him to an adjacent inn, and succeeded in restoring animation. Having changed his clothing and completed his round of visits, he returned to the boy and took him home to his relatives. Mr. Rich's heroism deserves warm commendation.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.—At a meeting of this society, held on Nov. 21st, Dr. J. S. Tew, President, in the chair, Dr. Handford read a paper on Endocarditis, and showed several specimens of the malignant form, in all of which signs of embolism, which were said to be so common, were absent. A purpuric rash was present in only one case, and then only a few hours before death. But the chief point discussed was the diagnostic value of murmurs in endocarditis; and the opinion was expressed that their importance was generally over-estimated and their significance often misinterpreted. A great many of the systolic apex murmurs arising during the course of acute rheumatism or other febrile diseases, and which were generally considered to be sufficient evidence of endocarditis, were really due to dilatation of the left ventricle and of the fibrous ring at the auriculo-ventricular opening. Especially was this true of those murmurs which disappeared early in convalescence. Dr. Handford believed that when a valve had been sufficiently damaged by endocarditis to lead to free regurgitation the valve never completely recovered, although the regurgitation might be diminished or prevented by gradual contraction of the orifice. But many cases of endocarditis were quite latent, or could only be suspected by indistinctness and prolongation of the first sound, by disturbances of rhythm, and rise of temperature. Even in the absence of all symptoms one was not justified in saying that the cardiac valves had not been damaged in an attack of rheumatism unless a careful examination six months or a year later revealed no abnormality. Hence great caution should be exercised in allowing exertion until a considerable time after an attack of acute rheumatism, lest an acute endocarditis should be prolonged in a chronic form through the extra strain upon the circulation. Remarks were made by the President, Dr. Watson, Mr. Tompsett, and Dr. Cattle.—Dr. Elder exhibited Gall-stones removed from a woman thirty-three years of age by cholecystotomy; a Mulberry Calculus removed by nephrotomy; and a Fibro-cystic Tumour removed by myomectomy.

FOOTBALL CASUALTIES.—While playing a game recently at Turnham-green a youth aged eight years sustained an injury to his ankle. A few days afterwards he was taken to St. George's Hospital and died there last week, acute inflammation followed by blood poisoning supervening.—On the 22nd ult., during a match at Buckingham between the Buckingham and Stony Stratford clubs, a player fractured his clavicle.—On Saturday last a youth aged sixteen years, in a match between the local teams at Blackpool, sustained a severe laceration of one of his eyes, and was subsequently taken to the Manchester Infirmary.

ROYAL BRITISH NURSES' ASSOCIATION.—The following sessional lectures have been announced among others:—The first lecture was given on Nov. 16th, entitled "Why Nurses break down in Health," by Mrs. Hughes; on Jan. 18th, 1895, Private Nursing, by Mrs. Gray; on Feb. 15th, Practical Demonstration on the Nursing of Rectal and Abdominal Surgical Cases, by Mrs. Bedford Fenwick; and on March 15th the Modern Trained Nurse, by Sir Dyce Duckworth, M.D. The lectures will be given at the offices, 17, Old Cavendish-street, London, W. The annual conversazione of the association will be held at the Grafton Galleries on Friday next, Dec. 7th, at 8.30 P.M.

ROYAL METEOROLOGICAL SOCIETY.—The opening meeting of the session was held on Wednesday evening, Nov. 21st, at the Institution of Civil Engineers, Westminster, Mr. R. Inwards, F.R.A.S., President, being in the chair. Mr. H. B. Guppy read a paper on Suggestions as to the Methods of Determining the Influence of Springs on the Temperature of a River, as illustrated by the Thames and its Tributaries. The methods suggested were: 1. Comparison of the curves of the monthly means of the temperatures of the air and of the water of the river under observation with those of a river beyond the controlling influence of springs. 2. Comparison of the monthly means of the temperature of the river under investigation with that of a river beyond the control of the springs. 3. Comparison of the range of the monthly means of the river temperature with that of the air in the shade. 4. Comparison of the daily range of water temperature at different stations along a river's course. 5. Comparison of sunrise observations made at different stations along a river's course. 6. Comparison of observations made at different stations along a river's course at the hour of maximum temperature. 7. Comparison of the results obtained from a single series of observations made in one day along the whole course of a small tributary like the Wandle, or along the upper course of a larger tributary such as the Kennet. 8. Determination of the distance from its source at which the river begins to freeze.

MEDICO-PSYCHOLOGICAL ASSOCIATION OF GREAT BRITAIN AND IRELAND.—A general meeting of this association was held on Thursday, Nov. 15th, at 11, Chandos-street, W., under the presidency of Mr. Conolly Norman.—Dr. Goodall read a paper prepared by Dr. Bullen and himself on Intercurrent Diseases and Insanity, in which attention was drawn to the fact that temporary and sometimes permanent mental improvement took place during the occurrence of an intercurrent disease, such as scarlet fever, typhoid fever, or erysipelas. This improvement might be due to the introduction of a toxine into the blood which neutralised the toxine previously existing in the body. Judging from this experience, the speaker thought that the theory of introducing a toxine into the body which might counteract mental disease, as in the case of anthrax, was worthy of notice, and he advocated experiments on the subject in various asylums. A discussion followed, in which Drs. Stewart, Savage, Mickle, Warnock, and Andriezen took part.—Dr. Campbell then read a paper, illustrated by a lantern demonstration, on the Breaking Strain of the Ribs in the Insane, being an Analysis of Fifty-eight Cases treated with an Instrument specially devised by Dr. Mercier. He mentioned the results at which he had arrived, and showed that, whereas the breaking strain of a normal eighth rib was about 65 lb., in many cases in which the bones were brittle the breaking strain was only 15 lb. Dr. Mercier illustrated the action of the instrument, and was of opinion that by its use the brittleness of bones could be demonstrated to a coroner and jury. A discussion followed, in which Drs. Andriezen, Rogers, Stansfield, and others took part.—Dr. Neil's paper on Three Cases of Recovery from Melancholia after Unusually Long Periods was taken as read.

WE understand that the contributions towards the special fund of £3300 required by the Surrey County Hospital at present amount only to £1000, but every effort is to be made to raise the requisite amount.

WE understand that the Local Government Board has consented to the erection of a hospital for the isolation of patients suffering from infectious diseases on Banstead Downs. The Board laid down certain conditions which were unanimously agreed to by the promoters of the undertaking.

TORQUAY MEDICAL SOCIETY.—At a meeting of this society on Nov. 21st, Mr. Atwool showed a mounted specimen of an Eye containing a small chip of metal embedded in the lens. Mr. Harris read notes of a case of Acute Anterior Poliomyelitis in a woman fifty-nine years of age, presenting all the classical signs, and followed by recovery in a month. Dr. Wilking Stabb showed a Heart weighing 1 lb. 13 oz., and presenting much deformity of the aortic cusps, together with vegetations, chiefly of a calcareous nature. The patient twenty-one months before death had well-marked symptoms of ulcerative endocarditis. Mr. G. Young Eales (hon. sec.) showed a man with a Tumour of the Lower Jaw, probably an osteo-sarcoma.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week, for publication in the next number.*

ADAMS, ALFRED, M.A., M.B., B.Ch. Oxon., M.R.C.S., L.R.C.P., has been appointed House Physician to the Radcliffe Infirmary, Oxford.

ANDREWS, A. G., F.R.C.S., M.L.R.C.P. Lond., has been reappointed Junior Anæsthetist to the Manchester Royal Infirmary.

BOND, WILLIAM ARTHUR, M.A., M.D., B.C., D.P.H. Camb., M.R.C.P. Lond., has been appointed by the Board, and his appointment has now been approved by the Local Government Board, vice F. P. Wightwick, resigned.

BUDGE, E. J. H., L.R.C.P., L.R.C.S. Edin., has been appointed Second Assistant Medical Officer of the St. George's Union Infirmary, Fulham-road, S.W.

BYLES, JOHN BEUZEVILLE, M.R.C.S. Eng., L.R.C.P. Lond., D.P.H. Camb., has been appointed House Surgeon to Addenbrooke's Hospital, Cambridge.

DE LISLE, F. J., L.R.C.P., L.M. Edin., has been appointed Honorary Medical Officer to the Hawkes Bay Hospital, New Zealand.

EDMUNDS, PERCY JAMES, M.R.C.S., L.R.C.P., B.Sc. Lond., has been appointed District Medical Officer for St. James's and Public Vaccinator for St. James's and St. Anne under the Guardians of the Westminster Union.

FIELDER, S., L.K.Q.C.P. Irel., L.S.A. Eng., has been appointed Medical Officer to the Clubs at Gosford, New South Wales, vice Green, resigned.

GALBRAITH, F. H., M.B., C.M. Aberd., has been appointed Medical Officer for the Workhouse of the Wolverhampton Union, vice Watts.

GODFREY, C. G., L.R.C.P., L.R.C.S. Eng., L.F.P.S. Glasg., M.R.C.S. Eng., has been appointed Acting Medical Superintendent to the Ballarat Lunatic Asylum, Victoria, South Australia.

HARDIE, D., M.D., Ch.M. Aberd., has been appointed Medical Officer of Health for the City of Brisbane, Queensland.

HARRISON, C. A., L.R.C.P. Lond., M.R.C.S., has been appointed a Public Vaccinator in South Australia.

HAYWARD, T. E., M.B. Lond., F.R.C.S., L.M., has been appointed Medical Officer of Health for the Haydock Urban Sanitary District.

HEAVEN, J. C., L.R.C.P. Lond., M.R.C.S., has been reappointed Medical Officer of Health for the Reynsham Rural Sanitary District.

HEWLETT, RICHARD T., M.D. Lond., has been appointed Assistant Bacteriologist in Dr. Macfadyen's Department of the British Institute of Preventive Medicine.

HUDSON, GODFREY, M.B. Edin., has been appointed House Surgeon to the Huntingdon County Hospital.

HUDSON, J. S., L.R.C.P., M.R.C.S., has been appointed House Surgeon to the East London Hospital for Children and Dispensary for Women, Shadwell, E., vice Henry Troutbeck, whose period of service has expired.

HULL, WALTER, M.D. Lond., L.R.C.P., M.R.C.S., has been appointed a Government Medical Officer and Vaccinator for the district of Cootamundra, New South Wales.

HUNT, BERTRAM, M.A., M.D. Oxon., has been appointed Assistant Bacteriologist in the Diphtheria Department of the British Institute of Preventive Medicine.

JARVIS, J. H. E., L.R.C.P. Lond., M.R.C.S., has been appointed Honorary Medical Officer to the Hawkes Bay Hospital, New Zealand.

KELLY, JOS. P., L.K.Q.C.P., L.R.C.S. Irel., has been appointed a Public Vaccinator at Dookie, Victoria, Australia, vice Rankin.

KENNEDY, JOHN R., M.B., C.M. Aberd., has been appointed Medical Officer for the Sanitary District of Carradale.

LAWTON, F., M.R.C.S., L.S.A. Eng., has been appointed a Public Vaccinator at Lancefield, Victoria, Australia, vice Chapman.

LOGIE, J., M.B. Aberd., C.M., has been appointed Medical Officer for the Charlton Sanitary District of the Woolwich Union.

MACDONALD, G. B. D., M.B., Ch.M. Aberd., has been appointed Assistant Medical Superintendent at the Woogaroo Asylum for the Insane, Goodna, Queensland.

MILES, WILLIAM ERNEST, F.R.C.S. Eng., has been appointed House Surgeon to the Radcliffe Infirmary, Oxford.

MITCHELL, A. B., M.B., B.Ch. Irel., has been appointed Assistant Surgeon for the Extern Department of the Belfast Royal Hospital.

MONSARRAT, K. W., M.B., C.M. Edin., has been appointed Junior House Physician to the General Hospital, Nottingham.

MORRIS, W., L.R.C.P., L.M. Edin., L.F.P.S. Glasg., has been appointed Medical Officer for the Western Bolton Sanitary District of the Bolton Union.

O'BRIEN, J., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Medical Officer for the Swanlinbar Sanitary District.

PORTER, THOMAS, M.B. Vict., Ch.B., has been reappointed Assistant Medical Officer to the Manchester Royal Infirmary.

PULLIN, F. B., L.R.C.P., L.M. Edin., L.F.P.S. Glasg., has been appointed Medical Officer to the local Oddfellows' Lodge, Yankalilla, South Australia.

RICHARDSON, CHARLES S, L.K.Q.C.P., L.M. Irel., L.R.C.S. Edin., has been appointed Health Officer and Medical Officer to the Police and Gaols and Paupers, at West Devonport, Tasmania, Australia, vice Downie.

ROBERTS, D. L., M.D. St. And., F.R.C.P. Lond., M.R.C.S., has been appointed Honorary Consulting Obstetric Physician to the Manchester Royal Infirmary.

SMART, T. C., L.R.C.S., L.M. Edin., has been appointed Health Officer, Hobart, Tasmania.

STALLARD, H., B.A. Cantab., M.R.C.S. Eng., L.R.C.P. Lond., has been appointed House Surgeon to Newark Hospital, vice E. Ringrose, resigned.

STEPHENS, C. E., M.B., C.M. Edin., has been appointed Medical Officer for the First Sanitary District and the Workhouse of the North Witchford Union.

STOKER, JOHN WM., L.R.C.P., L.R.C.S., L.F.P.S., L.M., has been appointed Medical Officer and Public Vaccinator for the Rainham District of the Romford Union.

WEBB, F. J., M.B. Vict., Ch.B., has been appointed Medical Officer for the Gorton Sanitary District of the Chorlton Union.

WILSON, ALEXR., L.R.C.P. Lond., F.R.C.S., has been reappointed Senior Anæsthetist to the Manchester Royal Infirmary.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—House Physician for six months. Board and residence and allowance for washing provided. Applications to the Secretary at the office, 24, Finsbury-circus, E.C.

DERBY [COUNTY ASYLUM, Mickleover.—Second Assistant Medical Officer. Salary £100 per annum, increasing £10 annually to £130, with board (without beer), lodging, and washing.

EAST-END BRANCH OF THE CHILDEN'S HOSPITAL, Sheffield.—House Surgeon. Salary £70 per annum, with board, lodging, and washing.

HOSPITAL FOR SICK CHILDREN, Great Ormond-street, Bloomsbury, W.C.—House Surgeon to Out-patients' Department for six months. Salary 25 guineas.

MANCHESTER ROYAL INFIRMARY.—Resident Medical Officer for the Fever Hospital at Monsall for at least twelve months. Salary £250 per annum, with board and residence.

OWENS COLLEGE, Manchester.—Junior Demonstratorship in Anatomy. Annual stipend £100.

PADDINGTON GREEN CHILDREN'S HOSPITAL, London, W.—Honorary Physician to Out-patients.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City-road, E.C.—House Physician for six months. Salary at the rate of £40 per annum, with board and lodging.

ROYAL BERKS HOSPITAL, Reading.—House Surgeon and House Physician for six months. Salary £60 per annum each, with board and lodging. Also Assistant Medical Officer for six months. Board and lodging provided.

ROYAL EAR HOSPITAL, Frith-street, Soho-square, W.—House Surgeon, non resident, for six months. Honorarium 12 guineas.

SALFORD UNION INFIRMARY.—Assistant Medical Officer for the Salford Union Infirmary, Hope, near Eccles. Salary £130 per annum, with furnished apartments in the Infirmary. Applications to the Clerk to the Guardians, Union Offices, Eccles New-road, Salford.

SHEFFIELD UNION.—Junior Resident Assistant Medical Officer (single or widower) at the Workhouse Infirmary, Fir Vale, Sheffield, for six months. Nominal salary at the rate of £25 per annum, with board, lodgings, and washing. Applications to the Clerk to the Guardians, Union Offices, Sheffield.

ST. GEORGE'S, HANOVER-SQUARE, PROVIDENT DISPENSARY, Little Grosvenor-street, W.—Resident Medical Officer. Salary £100, with allowances (about £30) and residence at the dispensary.

SURREY DISPENSARY, Southwark, S. E.—Resident Medical Officer. Salary £120 per annum, with furnished apartments, coal, gas, and attendance. Applications to the Secretary, 53, Borough High-street, Southwark.

Births, Marriages, and Deaths.

BIRTHS.

ASHLEY.—On Nov. 22nd, at Brixton-hill, S.W., the wife of S. Dukes Ashley, M.R.C.S., L.R.C.P., of a son.

BATTERHAM.—On Nov. 18th, at Grand Parade, St. Leonards-on-Sea, the wife of J. W. Batterham, M.B., F.R.C.S., of a son.

BINDLOSS.—On the 26th ult., at The Old House, Harrow-on-the-Hill, the wife of Arthur H. Bindloss, M.B., B.C. Cantab., M.R.C.S., L.R.C.P Lond., of a son.

DAVIDSON.—On Nov. 25th, at the White House, Teddington, the wife of Harold Davidson, M.R.C.S., L.R.C.P., of a son.

FERGUSON.—On Nov. 20th, at Lozells-road, Birmingham, the wife of Surgeon-Major J. E. Ferguson, of a son.

MARSH.—On Nov. 25th, at Oxford-terrace, Hyde-park, W., the wife of H. E. Marsh, M.D., of a son.

OWEN.—On Nov. 11th, at 3, St. Alban's-place, Blackburn, the wife of O. Trafford Owen, M.B. Edin., of a son.

SANDBERG.—On Nov. 26th, at Liverpool Lodge, Brixton-hill, S.W., the wife of Arthur G. Sandberg, M.D., of a daughter.

WALLIS.—On Nov. 25th, at Welbeck-street, London, W., the wife of F. C. Wallis, F.R.C.S., of a daughter.

WINDLE.—On the 27th ult., at Victoria-road, Aldershot, the wife of R. J. Windle, Surgeon-Captain Army Medical Staff, of a daughter.

MARRIAGES.

CATTELL—GOLDNER.—On Nov. 22nd, at St. Mary Abbott's Church, Kensington, George Trew Cattell, M.D., eldest son of George Cattell, of Brixton, to Cecilia (Cecy), only daughter of the late Samuel Goldner, of 17, Holland-villas-road, Kensington, W.

DAVIES—DONALDSON.—On Nov. 22, at St. Michael's Church, Edinburgh, Sanders Davies, Surgeon, of Ryton-on-Tyne, son of the late Captain L. Byron J. Davies, Bengal Staff Corps, to Jeannie Duncan, daughter of the late William Donaldson, Merchant, Edinburgh.

GRABHAM—CRANE.—On Nov. 21st, at St. Michael's, Bowes-park, George Wallington Grabham, M.D. Lond., of Tinakori, Bradford, Yorks., to Constance Ethel Josephine, only daughter of the late Edward Joseph Crane, Surgeon-Major Royal Artillery, of The Briars, Bowes-park.

HARDY—BALLARDIE.—On Nov. 27th, at Holy Trinity Church, Nuwara Eliya, Ceylon, Frederick Wynne Hardy, Surgeon-Captain A.M.S., third son of the Rev. E. C. Hardy, late Vicar of Longdon-on-Tern, Shropshire, to Dora, eldest daughter of George M. Ballardie, of Nuwara Eliya.

JONES—WESTMACOTT.—On Nov. 24th, at Marylebone Church, London, John Hervey Jones, M.D. Lond., M.R.C.S., of Chorlton Lodge, Stretford-road, Manchester, to Violet Westmacott, of 12, Nottingham-place, London, W.

MILNE—THEOBOLD.—On Oct. 22nd, at St. James's, Paddington, John Alexander Milne, L.R.C.P., L.R.C.S. Edin., only son of the late Rev. John Milne, M.A., Senior Chaplain to the Forces, to Isabel Mary, second daughter of the late Theobold Theobold, of The Abbey, Sutton Courtenay, Abingdon, Berks.

ORMEROD—JAQUES.—On Nov. 20th, at the Parish Church, Croydon, Charles Evelyn Ormerod, M.D., M.R.C.S., L.R.C.P., elder son of the late Rev. C. H. A. Ormerod, to Rosalind Mary, second daughter of John Jaques, of Duppas-hill, Croydon.

RUDOLF—DAWSON.—At Holy Cross Church, Woodchurch, Cheshire, on Nov. 14th, 1894, by the Rev. Canon Robin of Woodchurch, assisted by the Rev. Percival C. Robin of St. Saviour's, Oxton, Robert Dawson Rudolf, M.B., C.M., second son of the late William Norman Rudolf, to Rosa Marguerite, younger daughter of John Towne Dawson, Barrister-at-Law, of Dryclose, Grasmere.

WADHAM—TAYLOR.—On Nov. 21st, at Sydney, New South Wales, Frederick Wadham, F.R.C.S., L.R.C.P., of Strathfield, Sydney, to Mary E. Taylor, Wick Lodge, Brighton, daughter of Francis Taylor, of Eliot Park, Blackheath.

WOORE—LONGSDON.—On Oct. 30th, at the Parish Church, St. Andrew's, Jamaica, Francis Woore, Staff Surgeon Royal Navy, second son of the late Captain John Woore, 10th Bengal Cavalry, to Helen, youngest daughter of the late Robert Longsdon, of Church House, Bromley, Kent.

DEATHS.

MASON.—On Nov. 23rd, R. D. Mason, M.R.C.S., C.B., Inspector-General of Hospitals and Fleets (Retired List), J.P. for the county of Suffolk, in his 81st year.

ROBERTS.—On Nov. 24th, at Lansdowne-place, Brighton, Edmund Humphrey Roberts, Deputy-Surgeon-General (Retired) Army Medical Department, aged 62 years.

ROCHE.—On Nov. 17th, at Liverpool, Hallett Lyttleton Roche, L.R.C.P., L.S.A., youngest son of the late H. P. Roche, Registrar in Bankruptcy, aged 39.

WALKER.—On Nov. 23rd, at Redcar, Yorkshire, William Walker, M.D., M.R.C.S., L.S.A., in his 49th year.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Nov. 29th, 1894.

Date.	Barometer reduced to Sea Level and 32° F	Direction of Wind	Dry Bulb	Wet Bulb	Solar Radia in Vacuo	Maximum Temp Shade	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
Nov. 23	30·30	S.E.	42	40	56	46	38	...	Foggy
,, 24	30·33	S.E.	42	40	69	52	40	...	Overcast
,, 25	30·36	E.	46	44	67	48	42	...	Cloudy
,, 26	30·35	N.E.	41	39	43	43	39	...	Overcast
,, 27	30·35	N.E.	43	41	47	46	41	...	Overcast
,, 28	30·37	N.E.	43	40	47	45	42	...	Overcast
,, 29	30·29	W.	42	41	47	47	40	...	Foggy

Medical Diary for the ensuing Week.

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY.—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), St. George's (1 P.M.), St. Mark's (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynecological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopædic (2 P.M.).

TUESDAY.—London (2 P.M.), St. Bartholomew's (1.30 P.M.), Guy's (1.30 P.M.), St. Thomas's (3.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (1.30 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.).

WEDNESDAY.—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), Gt. Northern Central (2.30 P.M.), King's College (2 P.M.), National Orthopædic (10 A.M.), St. Peter's (2 P.M.), Samaritan (2.30 P.M.), Gt. Ormond-street (9.30 A.M.).

THURSDAY.—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (2 P.M.), Soho-square (2 P.M.), North West London (2 P.M.).

FRIDAY.—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), Cancer (2 P.M.), Chelsea (2 P.M.).

SATURDAY.—Royal Free (9 A.M. and 2 P.M.), Middlesex (1.30 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), University College (9.15 A.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), Cancer (2 P.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

SOCIETIES.

MONDAY.—ODONTOLOGICAL SOCIETY OF GREAT BRITAIN (40, Leicester-square, W.C.).—8 P.M. Dr. Job Collins: Orbito-Maxillary Diseases. Casual Communications by Mr. Stephen Mundell, Mr. C. Robbins, and Mr. A. R. Colyer.

SOCIETY OF ARTS.—8 P.M. Prof. Vivian B. Lewes: Modern Developments in Explosives. (Cantor Lecture.)

TUESDAY.—PATHOLOGICAL SOCIETY OF LONDON.—Dr. W. P. Herringham: Subdural Hæmorrhage in Pernicious Anæmia.—Dr. F. T. Paul: (1) Cancer of an Axillary Breast; (2) Calcifying Cutaneous Adenoma. Dr. P. H. Pye-Smith: Cystic Kidneys.—Mr. Herbert Snow: Chondrosarcoma of the Humerus.—Mr. S. G. Shattock: Tumour of the Palate.

ROYAL STATISTICAL SOCIETY (28, Jermyn-st., S.W.).—4.45 P.M. Hon. Robert P. Porter: The Eleventh United States Census. An exhibition of the Hollerith Electrical Counting Machine will be given by Dr. Herman Hollerith (Washington).

WEDNESDAY.—OBSTETRICAL SOCIETY OF LONDON.—8 P.M. Mr. Targett will give a Lime-light Demonstration on Hydatids of the Pelvis. Specimens will be shown by Dr. T. E. Stevens and others. Dr. A. H. N. Lewers: A case of Primary Carcinoma of the Body of the Uterus in which Vaginal Hysterectomy was performed and more than two years have elapsed without recurrence, with a Table of Five other cases of Vaginal Hysterectomy for Cancer of the Body of the Uterus. Dr. John Shaw: Peritonitis, its Nature and Treatment.

SOCIETY OF ARTS.—8 P.M. Mr. Edwin O. Sachs: Fire Protection.

THURSDAY.—SOCIETY OF ARTS (Imperial Institute).—4.30 P.M. Hon. W. Lee-Warner: Roman and British Indian Systems of Government.

HARVEIAN SOCIETY.—8.30 P.M. Mr. Herbert W. Page: Some Disorders of Nervous Function due to Injury and Shock. (First Harveian Lecture.)

NEUROLOGICAL SOCIETY OF LONDON (National Hospital, Queen-sq.).—8.30 P.M. Dr. Cagney: (1) Intracranial Disease; (2) Muscular Dystrophy with Vaso-motor Paralysis.—Mr. Dean: Cerebellar Abscess two years and a half after successful operation.—Mr. Openshaw: Two cases of Recovery from Trephining of Cerebral Abscess.—Dr. S. Mackenzie: Hemianopia with Localised Muscular Atrophy.—Mr. Horsley: Intracranial Tumour benefited by Operation.—Dr. Ogilvie: Optic Atrophy with peculiar field for diagnosis.—Mr. Stoddart (for Dr. Bradford): (1) Facial Hemiatrophy; (2) Ophthalmoplegia.—Dr. Beevor: Facial Hemiatrophy.—Dr. Taylor: (1) Xerostomia; (2) Muscular Atrophy with Argyl-Robertson Pupils.—Dr. Whiting (for Dr. Bastian): Hemianæsthesia with Rigidity in a man (second attack).

LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

WEDNESDAY.—ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN (Leicester-sq., W.C.).—1 to 5 P.M. Dr. Morgan Dockrell: Erythema.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC (Bloomsbury).—3 P.M. Lecture by Dr. Gowers.

WEST LONDON HOSPITAL (Hammersmith-rd., W.).—5 P.M. Mr. Cheatle: Surgical Cases. (Post-graduate Course.)

FRIDAY.—ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN (Leicester-square, W.C.).—11 A.M. Dr. J. O. W. Barratt: Case-taking.

LONDON SKIN HOSPITAL.—3 P.M. Dr. Barry: Syphilitic Eruptions.

SATURDAY.—ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN (Leicester-square, W.C.).—2 to 6 P.M. Dr. Morgan Dockrell: Lichen Planus and Scrofulosus.

Notes, Short Comments & Answers to Correspondents.

EDITORIAL NOTICE.

IT is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale and advertising departments of THE LANCET *should be addressed "To the Manager."*

We cannot undertake to return MSS. not used.

MANAGER'S NOTICE.

UNDER no circumstances do the Proprietors authorise the insertion of loose advertisement circulars and handbills in THE LANCET. Any such announcements are inserted by the newsagents, whom the Proprietors cannot control. At the same time, the Manager will be glad if readers will send him copies of any circulars, with the name and address of the agent through whom they obtain THE LANCET, and the Manager will then endeavour to mitigate the nuisance.

MEDICAL TITLES AND PARISH COUNCIL ELECTIONS.

WE have expressed the wish that many medical men will see their way clear to offer their services as parish councillors. It is desirable, however, that in their candidature they should restrain the generous ardour of their supporters, who may attempt biographical notices and the assignment of professional titles. A case in point is before us, where a Birmingham paper gives the whole career of a medical man, with an additional and ornamental title. In another edition of the same paper the same candidate's treatment of a burn is descanted on in a laudatory manner and as an argument for his election to the district council. If the treatment of a burn may be so used, why not the treatment of other complaints? This suggestion is enough to discourage such efforts on the part of all sensible patients. The candidate himself will not need us to labour this point.

Vigilans.—There are two distinct questions raised in our correspondent's letter. As regards the first we can only suggest that a solicitor's opinion would be more valuable than ours. In answer to the second we think that the proof given would not satisfy the requirements of the General Medical Council; but if the account of the whole case is not very inaccurate the use of the unqualified assistant, though short of "covering," is to be greatly deprecated.

Caliph.—As a student of medicine our correspondent should be in an excellent position to obtain sound medical advice. This we recommend he should do rather than attempt to heal himself in accordance with book precepts. We never give medical advice in our columns.

"OVERCROWDING OF THE PROFESSION."

To the Editors of THE LANCET.

SIRS,—Mr. Feeny, while rejoicing in the efforts of medical officers of health to stem the course of epidemics and to ward off disease from our shores, points out also that it prevents a large amount of work that would fall to medical practitioners. This is doubtless the case; but, on the other hand, is it not also a fact that sanitary science, while shielding the weaker members of our population from such scourges as cholera, &c., provides us, by so doing, with an ever-increasing number of ill-developed and delicate patients who would otherwise be swept out of existence? In short, does it not promote the survival of the "unfit" (*pace* Dr. Wilks), the charge of whom devolves largely upon us, whose care and skill are so constantly in requisition, and are the means so often of enabling them to reach the adult age, and in many cases their threescore years and ten, at the same time with much less risk to ourselves?—Yours faithfully,

Nov. 28th, 1894. PEPSIN.

THE MIDWIFE'S CERTIFICATE.

LAST Monday, at the Battersea Coroner's Court, Mr. A. Braxton Hicks concluded an inquiry respecting the death of a child aged about eighteen hours. The mother was attended by an uncertificated midwife, who wrote out a certificate and handed it to a local undertaker in order that the child might be buried as stillborn. In reply to the coroner, the midwife stated that she knew the child had lived nearly twenty hours, but she thought that one which died so young was regarded as stillborn. The mother of the child admitted that it had lived nearly a day. Dr. Kempster, the divisional surgeon, said that the child died from convulsions, and that many women in that district who acted as midwives gave certificates such as the one before the court. The jury returned a verdict of "Death from natural causes," and suggested legislation in the matter of death certificates as recommended by the Select Committee on Death Certification.

Cirujano (Straits of Magellan).—We know of no remedy which can be expected to dispel the auditory hallucinations described by our correspondent, and cannot, therefore, give a hopeful prognosis. No mention is made of any inherited tendency to mental disorder.

W. Y. R.—Different hospitals have different rules. In all cases information can be obtained from the head nursing sister or superintendent of nurses.

THE WORTH OF LIFE.

To the Editors of THE LANCET.

SIRS,—Your frequent and pointed allusions to the increase of suicides among us have led me to seriously think over Mr. Mallock's now trite question: Is life worth living? It is ever the same old question, and still it goes begging for an answer. What that answer will be must depend upon more than one influence acting upon the will of him who gives it. Circumstance, whether it be taken to imply a mere atmospheric state of weather or climate, or more suitably the mental atmosphere of social relation, has no doubt much to do with shaping the response. Not a little, too, depends upon physical conditions of health and constitution. Above all—and this is especially true in proportion to the earnestness of the inquiry—personal character and purpose in life must be considered if we would rightly gauge the value of a yea or a nay to the familiar query. Two moral forces are mainly effectual in moulding the lives of mankind: one is the desire to excel, or, in other words, to obtain; the other a sense of duty—contraries in some degree, since one must often check the other. There is no character in which they do not mingle. It is in proportion as one or other of these for the time being acquires an ascendency that we are able under the crucial test of a present difficulty to understand aright the purpose and meaning of life. This is a matter outside the curriculum of ordinary education. Ordinary school teaching, indispensable and helpful as it is, has, it would seem, engendered as much impatience as patience in human character.

By way of illustration let me refer you to an article in THE LANCET of June 20th, 1891. The fact that suicide, the gloomiest negative to faith in life's utility, was exhibiting signs of increasing prevalence during the present century was there remarked upon, and this increase has been steadily maintained. This increase has no merely racial connexion. Equally little does it seem to depend upon either drink or destitution. On the other hand, it clings to the path followed by education; it is a pest of cultured peoples. It is as if to taste the fruit of knowledge brought on a thirst for having, in its turn to result in the disappointment of starvation. New ambitions and new needs become apparent; disparities of desires and attainments are more keenly felt; worries multiply, and impatience too often seeks relief in the long rest of death. These effects, of course, do not spring from the true seeds of learning, but rather from ground weeds thrown up in the course of tillage. Nevertheless, it must be allowed that education has not so far done much towards enabling men to undo our puzzle. High scholarship has not always prevented their cutting the knot when they might have untwisted it.

It is doubtless with our present question as with every other: it is asked and answered within its own province—that of morals. The true answer, moreover, comes only to dispassionate asking. Impressions of present circumstance, desires, all more self-concern, must go, till duty stands unblurred before the eye. Viewing every life in its relation to this, we see clearly the connexion of each individual with every other as parts in a common system of activity which bears upon it unmistakable marks of order, and suggests—nay, shows—the presence of a directing mind cognisant of the true purposes, the needs, and the worth of every human fraction within it. No less extended view of life—certainly no purely selfish one—can enable us to form as true an estimate of the value of a life, nor can we see how when thus viewed it can appear to be other than worth living. With apologies for trespassing at such length on your space, I am, Sirs, yours truly,

Nov. 24th, 1894. M.D.

WINTERING IN MADEIRA.

To the Editors of THE LANCET.

SIRS,—Can any of your readers give me full information as to winter residence in any of the following places—Madeira, Grand Canary (Las Palmas), and Orotava? What would be the probable cost of living for a family, and would it be possible to obtain a good supply of pure milk (cow's or goat's), as this is all-important? Yours faithfully,

Anerley-park, Nov. 27th, 1894. G.

THE SCARE OF RABIES.

WE have received from Mr. Conrad Gerland, M.Sc. Vict., Ph.D. Marburg, a reprint of an article in the *Accrington Observer*, in which he insists on the absolute necessity of complete and early post-mortem examination to establish the diagnosis of rabies. Mr. Gerland considers that the Accrington authorities, "in their zeal for purification by fire in committing the mortal remains of two unfortunate dogs to the flames of the destructor," left no evidence which they could adduce *pro bono publico* of the nature of the disease from which these dogs were suffering. We agree with Mr. Gerland that the early post-mortem examination of the suspected dog is very advisable.

G. A. S. G.—1. It is right when a practitioner is leaving home for a few days and has reason to expect that his professional neighbours may have emergencies to attend to for him, or has given instructions to that effect, to give them a hint. This scarcely comes under the head of an emergency.—2. The answer to this is involved in the previous answer.—3. We think C. should have answered our correspondent *directly*, and not through his principal. Duty done by the assistant of a medical man for his principal's neighbour can scarcely be included in his proper work, and deserves thanks. Perhaps the question might not have arisen had principals only been concerned. Their relations might be so intimate as to supersede these formalities of courtesy. Still, we do not imagine that C. meant any discourtesy.

Medicus.—Should it not be "Medica"? Our correspondent has withheld name and address.

WINTER IN CHAMOUNIX.

To the Editors of THE LANCET.

SIRS,—Will any of your readers who have had experience of Chamounix in winter kindly furnish me with any information as to temperature and general climatic conditions, especially as regards dryness of atmosphere, during the months of December, January, February, and March?

I am, Sirs, yours faithfully,

Nov. 26th, 1894. W. H. M.

GIVING CHLOROFORM FOR UNQUALIFIED DENTISTS.

WE are decidedly of opinion that medical men should decline to give chloroform to patients of unqualified dentists. We are not called on to coöperate with the unqualified in the relief of suffering. If called to a case of fracture of the jaw by an unqualified dentist, *a fortiori* it would be the medical man's duty to demand that a qualified dentist be called in.

Mr. James Gardner.—The mere time the patient is in is not a sufficient criterion. The amount of trouble and the element of risk must also be taken into account. But there is no tariff for such duties, and our correspondent must make an estimate for himself of the charges that will be reasonable. Even the number of cases is not a criterion of the exacting nature of such an appointment.

Inquirer would do well in some such way as he indicates to satisfy himself of the charges in the place, and to act consistently with them.

"THE LONDON AND PROVINCIAL NURSING AGENCY."

To the Editors of THE LANCET.

SIRS,—I have for some time past had my suspicions as to the genuineness of the above "agency," and shall be pleased to hear what they have to say for themselves, as I, too, was foolish enough to part with half-a-guinea to them. I am, Sirs, yours faithfully,

Towcester, Nov. 27th, 1894. H. STEDMAN.

MEDICAL ETHICS.—CHANGE OF MEDICAL ATTENDANT.

IT is customary when one practitioner is replaced by another that the practitioner in previous attendance should have notice of the wish of the patient for a change. It is not essential for the practitioner called in to see the gentleman he succeeds so long as he has reason to believe that he has had courteous intimation of the change.

W. H. might apply to the Royal Free Hospital. A neighbouring general practitioner might be able to offer the accommodation sought.

During the week marked copies of the following newspapers have been received:—*Manchester Guardian, Times of India, Huddersfield Chronicle, Lincolnshire Echo, Newcastle Leader, Irish Times, Devizes Advertiser, Surrey Gazette, Longton Times, Stamford Guardian, Buxton Advertiser, Banffshire Herald, Southampton Times, Northern Echo, Sussex Daily News, Glasgow Herald, Pioneer Mail, Birmingham Gazette, City Press, Wolverhampton Chronicle, Bristol Mercury, Scotsman, Builder, Sunday Times, South Wales Daily News, Grocers' Review, Architect, Thames Valley Times, Leeds Mercury, Le Monde Journal, Paris, Liverpool Daily Post, Daily Chronicle, Yorkshire Post, Citizen, Bournemouth Visitors' Directory, Reading Mercury, Wigan Observer, Wigan Examiner, West Middlesex Advertiser, Isle of Wight Express, Pall Mall Gazette, Local Government Journal, Kensington News, Surrey Advertiser, Fife Herald, Ayrshire Post, Essex County Standard, Carlisle Express, Haddingtonshire Advertiser, Rugby Advertiser, Hamilton Herald, Western-super-Mare Gazette, Bedfordshire Advertiser, Lincolnshire and Spalding Free Press, &c., &c.*

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